



Reserve Study

For

Middlesex Beach Association

September 20, 2017



Reserve Study Prepared  
By  
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Laurel, Delaware 19956

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# **Part I Information About Your Reserve Study**

## **INTRODUCTION**

Preparing the annual budget and overseeing finances are among the most important responsibilities of the Association and its management team. The annual operating and reserve budgets reflect the planning and goals of the Association and set the level and quality of service for all of the Association activities. The use of the reserve study as a planning tool is key to maintaining the value of individual units as well as the value of the community as a whole.

## **IMPORTANT INFORMATION**

This document has been provided pursuant to an agreement containing restrictions on its use. No part of this document may be copied or distributed, in any form or by any means, nor disclosed to third parties (unit owners are not considered “third parties”) without the expressed written permission of The Whayland Group. The client shall have the right to reproduce and distribute copies of this report, or the information contained within, as may be required for compliance with all applicable regulations.

This reserve analysis study and the parameters under which it has been completed are based upon information provided to us in part by representatives of the client, its contractors, assorted vendors, specialist and independent contractors, and various construction pricing and scheduling manuals including, but not limited to: Marshall & Swift Valuation Service, RS Means Facilities Maintenance & Repair Cost Data, RS Means Repair & Remodeling Cost Data, National Construction Estimator, National Repair & Remodel Estimator, Dodge Cost Manual and McGraw-Hill Professional. Additionally, costs are obtained from numerous vendor catalogues, actual quotations or historical costs, and our own experience in the field of property management and reserve study preparation.

It has been assumed, unless otherwise noted in this report, that all assets have been designed and constructed properly and that each estimated useful life will approximate that of the norm per industry standards and/or manufacturer’s specifications. In some cases, estimates may have been used on assets, which have an indeterminable but potential liability to the client. The decision for the inclusion of these as well as all assets considered is left to the client.

We recommend that your reserve study be updated on an annual basis (2 or 3 years for studies of limited scope) due to fluctuating interest rates, inflationary changes, and the unpredictable nature of the lives of many of the assets under consideration. All of the information collected during our observation and computations made subsequently in preparing this reserve analysis study are retained in our computer files. Therefore, annual updates may be completed quickly and inexpensively each year.

The Whayland Group would like to thank you for using our services. We invite you to call us at any time, should you have questions, comments or need assistance. In addition, any of the parameters and estimates used in this study may be changed at your request, after which we will provide a revised study.

This reserve analysis study is provided as an aid for planning purposes and not as an accounting tool. Since it deals with events yet to take place, there is no assurance that the results enumerated within it will, in fact, occur as described.

## **DISCLOSURES**

This reserve study is based on information furnished to the preparer and is compiled for the use of the Association and not for the purposes of auditing, forensic investigation, quality determination, historical verification, or any other purpose.

All information furnished by the Association including but not limited to site plans indicating the location of lots, roads, and other improvements, building plans, and certain financial and historical information, is held to be reliable by the reserve study preparer.

On-site observations conducted by the reserve study preparer shall not be considered to be engineering or quality inspections, or quantity or capacity audits.

Unless stated elsewhere in the reserve study, the physical analysis was developed from on-site field observations; quantity surveying was performed on-line via GIS, by drawing-take-off, or by field measurement where GIS and drawing information were not available. On-site surface visual observation was used to determine the condition and/or remaining life of the components. No invasive, chemical, destructive, or other tests were performed.

The reserve balance, actual or projected, contained in the reserve study is based on information provided and was not audited by the reserve study preparer.

The reserve study preparer is not aware of any material issues, which if not disclosed, would result in a distortion of the Association's situation.

The reserve study preparer is not aware of any other business dealings or relationships with the Association or its individual members that could constitute an actual or perceived conflict of interest.

## **RESERVE STUDY PREPARER'S QUALIFICATIONS**

Robert C. Wheatley has a Bachelor of Science degree in Business Administration and 35 years experience in commercial and condominium/apartment construction and property management.

He is a licensed real estate agent in Delaware (RS-0020828) and Maryland (645398).

He is an outside Director of the Bank of Delmarva, Chairman of the Sussex County Planning and Zoning Commission, and the Governor's Sussex County Appointed Member of the Delaware Association Professional Engineers.

Robert C. Wheatley has met all the criteria for and is designated by the Community Associations Institute (CAI) as Reserve Specialist #309.

## **FUNDING OPTIONS**

When a major repair or replacement is required, there are essentially three options available to address the

expenditure:

The first, and only logical means to ensure its ability to maintain the assets for which it is obligated, is by **setting aside an adequate level reserves** as part of the regular annual budget process. The association is not only comprised of present members, but also future members. Any decision to adopt a calculation method or funding plan, which would disproportionately burden future members in order to make up for past reserve deficits, would be a breach of its fiduciary responsibility to those future members. Unlike individuals determining their own course of action, the trustees are responsible to the association as a whole.

The second option is for the client to **acquire a loan** from a lending institution in order to affect the required repairs. In some cases, banks will lend to a client using “future collections” as collateral for the loan. More often than not, the bank will require real estate collateral or personal guarantees. Regardless, the current trustees are pledging the future assets of the association. They are also incurring the additional expense of interest fees along with the original principal amount. In the case of a \$150,000 roofing replacement, the client may be required to pay back the loan over a three to five year period, with interest.

The third option, too often used, is simply to **defer the required repair or replacement**. This option, which is not recommended, can create an environment of declining property values due to expanding lists of deferred maintenance items and the client’s financial inability to keep pace with the normal aging process of the common area components.

## **TYPES OF RESERVE STUDIES**

Most reserve studies fit into one of three categories:

Full Reserve Study;

Update with site inspection; and

Update without site inspection.

In a **Full Reserve Study**, the reserve provider conducts a component inventory, a condition assessment (based upon on-site visual observations), and life and valuation estimates to determine both a “fund status” and “funding plan”.

In an **Update with site inspection**, the reserve provider conducts a component inventory (verification only, not quantification unless new components have been added to the inventory), a condition assessment (based upon on-site visual observations), and life and valuation estimates to determine both the “fund status and “funding plan.”

In an **Update without site inspection**, the reserve provider conducts life and valuation estimates to determine the “fund status” and “funding plan.”

## **PHYSICAL AND FINANCIAL ANALYSIS**

There are two components of a reserve study: a physical analysis and a financial analysis.

### **Physical Analysis**

During the physical analysis, a reserve study provider evaluates information regarding the physical status and repair/replacement cost of the client’s major common area components. To do so, the provider conducts a component inventory, a condition assessment, and life and valuation estimates.

## Developing a Component List

The budget process begins with full inventory of all the major components for which the client is responsible. The determination of whether an expense should be labeled as operational, reserve, or excluded altogether is sometimes subjective. Since this labeling may have a major impact on the financial plans of the client, subjective determinations should be minimized. We suggest the following considerations when labeling an expense.

### Operational Expenses

Occur at least annually, no matter how large the expense, and can be budgeted for effectively each year. They are characterized as being reasonably predictable, both in terms of frequency and cost. Operational expenses include all minor expenses, which would not otherwise adversely affect an operational budget from one year to the next. Examples of *operational expenses* include:

<b>Utilities:</b>	Bank Service Charges	Accounting
Electricity	Dues & Publications	Reserve Study
Gas	Licenses, Permits & Fees	<b>Repair Expenses:</b>
Water	Insurance(s)	Tile Roof Repairs
Telephone	<b>Services:</b>	Equipment Repairs
Cable TV	Landscaping	Minor Concrete Repairs
<b>Administrative:</b>	Pool Maintenance	Operating Contingency
Supplies	Street Sweeping	

### Reserve Expenses

These are major expenses that occur other than annually, and which must be budgeted for in advance in order to ensure the availability of the necessary funds in time for their use. Reserve expenses are reasonably predictable both in terms of frequency and cost. However, they may include significant assets that have an indeterminable but potential liability that may be demonstrated as a likely occurrence. They are expenses that, when incurred, would have a significant effect on the smooth operation of the budgetary process from one year to the next, if they were not reserved for in advance. Examples of reserve expenses include:

Roof Replacements	Park/Play Equipment
Painting	Pool/Spa Re-plastering
Deck Resurfacing	Pool Equipment Replacement
Fencing Replacement	Pool Furniture Replacement
Asphalt Seal Coating	Tennis Court Resurfacing
Asphalt Repairs	Lighting Replacement
Asphalt Overlays	Insurance(s)
Equipment Replacement	Reserve Study
Interior Furnishings	

### Budgeting is Normally Excluded for:

Repairs or replacements of assets which are deemed to have an estimated useful life equal to or exceeding the estimated useful life of the facility or community itself, or exceeding the legal life of the community as defined in a client's governing documents or policies. Examples include the complete replacement of elevators, tile roofs, wiring and plumbing. Also excluded are insignificant expenses that may be covered either by an operating or reserve contingency, or otherwise in a general maintenance fund. Expenses that are necessitated by acts of nature, accidents or other occurrences that are more properly insured for, rather than reserved for, are also excluded.

### **Financial Analysis**

The financial analysis assesses the client's reserve balance or "fund status" (measured in cash or as percent fully funded) to determine a recommendation for the appropriate reserve contribution rate in the future, known as the "funding plan".

### **Preparing the Reserve Study**

Once the reserve assets have been identified and quantified, their respective replacement costs, useful lives and remaining lives must be assigned so that a funding schedule can be constructed. Replacement costs and useful lives can be found in published manuals such as construction estimators, appraisal handbooks, and valuation guides. Remaining lives are calculated from the useful lives and ages of assets and adjusted according to conditions such as design, manufactured quality, usage, exposure to the elements and maintenance history.

By following the recommendations of an effective reserve study, the client should avoid any major shortfalls. However, to remain accurate, the report should be updated on an annual basis to reflect such changes as shifts in economic parameters, additions of phases or assets, or expenditures of reserve funds. The client can assist in simplifying the reserve analysis update process by keeping accurate records of these changes throughout the year.

### **FUNDING METHODS**

From the simplest to the most complex, reserve analysis providers use many different computational processes to calculate reserve requirements. However, there are two basic processes identified as industry standards: the cash flow method and the component method.

The cash flow method develops a reserve-funding plan where contributions to the reserve fund are designed to offset the variable annual expenditures from the reserve fund. Different reserve funding plans are tested against the actual anticipated schedule of reserve expenses until the desired funding goal is achieved. This method sets up a "window" in which all future anticipated replacement costs are computed, based upon the individual lives of the components under consideration. The Whayland Group Threshold and The Whayland Group Current Assessment funding models are based upon the cash flow method.

The component method develops a reserve-funding plan where the total contribution is based upon the sum of contributions for individual components. The component method is the more conservative of the two funding options, and assures that the client will achieve and maintain an ideal level of reserve over time. This method also allows for computations on individual components in the analysis. The Whayland Group Component Funding model is based upon the component methodology.



## FUNDING STRATEGIES

Once a client has established its funding goals, the client can select an appropriate funding plan. There are four basic strategies from which most clients select. It is recommended that clients consult professionals to determine the best strategy or combination of plans that best suit the client's need. Additionally, clients should consult with their financial advisor to determine the tax implications of selecting a particular plan. Further, consultation with the American Institute of Certified Public Accountants (AICPA) for their reporting requirements is advisable. The four funding plans and descriptions of each are detailed below. Clients will have to update their reserve studies more or less frequently depending on the funding strategy they select.

**Full Funding**---Given that the basis of funding for reserves is to distribute the costs of the replacements over the lives of the components in question, it follows that the ideal level of reserves would be proportionately related to those lives and costs. If a client has a component with an expected estimated useful life of ten years, it would set aside approximately one-tenth of the replacement cost each year. At the end of three years, one would expect three-tenths of the replacement cost to have accumulated, and if so, that component would be "fully-funded." This model is important in that it is a measure of the adequacy of a client's reserves at any one point of time, and is independent of any particular method which may have been used for past funding or may be under consideration for future funding. This formula represents a snapshot in time and is based upon current replacement cost, independent of future inflationary or investment factors:

**Fully Funded Reserves = Age divided by Useful Life the results multiplied by Current Replacement Cost**

When a client's total accumulated reserves for all components meet this criterion, its reserves are considered "fully-funded."

The Whayland Group **Threshold Funding Model**. This method is based upon the cash flow funding concept. The goal of this funding method is to keep the reserve cash balance above a certain dollar level. This means that while each individual component may not be fully funded, the reserve balance overall does not drop below a certain level during the projected period. Cash flow funding can result in a more efficient application of funds and is widely used in the industry.

The Whayland Group **Current Assessment Funding Model**. This method is also based upon the cash flow funding concept. The initial reserve assessment is set at the client's current fiscal year funding level and a 30-year projection is calculated to illustrate the adequacy of the current level of funding over time.

The Whayland Group **Component Funding Model**. This is a straight-line funding model. It distributes the cash reserves to individual reserve components and then calculates what the reserve assessment and interest contribution (minus taxes) should be, again by each reserve component. The current annual assessment is then determined by summing all the individual component assessments, hence the name "Component Funding Model". This is the most conservative funding model. It leads to or maintains the fully funded reserve position; however, it can result in a reserve balance in excess of what is needed to adequately fund replacements on an ongoing basis.

## USERS' GUIDE TO YOUR RESERVE ANALYSIS STUDY

Part II of your Whayland Group Report contains the reserve analysis study for your client. There are seven types of reports in the study as described below.

### Report Summaries

The Report Summary for all funding models lists all of the parameters that were used in calculating the

report as well as the summary of your reserve analysis study.

## **Index Reports**

The **Distribution of Accumulated Reserves** report lists all assets in remaining life order. It also identifies the ideal level of reserves that should have accumulated for the client as well as the actual reserves available. This information is valid only for the “Component Funding Model” calculation.

The **Component Listing/Summary** lists all assets by category (i.e. roofing, painting, lighting, etc.) together with their remaining life, current cost, monthly reserve contribution, and net monthly allocation.

## **Detail Reports**

The Detail Report itemizes each asset and lists all measurements, current and future costs, and calculations for that asset. Provisions for percentage replacements, salvage values, and one-time replacements can also be utilized. These reports can be sorted by category or group.

The numerical listings for each asset are enhanced by extensive narrative detailing factors such as design, manufactured quality, usage, exposure to elements and maintenance history.

The Whayland Group Detail Index is an alphabetical listing of all assets, together with the page number of the asset’s detail report, the projected replacement year, and the asset number.

## **Projections**

Thirty-year projections add to the usefulness of your reserve analysis study.

## **DEFINITIONS**

### **Report I.D.**

Includes the Report Date (example: November 15, 2012), Account Number (example: 9773), and Version (example: 1.0). Please use this information (displayed on the summary page) when referencing your report.

### **Budget Year Beginning/Ending**

The budgetary year for which the report is prepared. For clients with fiscal years ending December 31<sup>st</sup>, the monthly contribution figures indicated are for the 12-month period beginning 1/1/20xx and ending 12/31/20xx.

### **Number of Units and/or Phases**

If applicable, the number of units and/or phases included in this version of the report.

### **Inflation**

This figure is used to approximate the future cost to repair or replace each component in the report. The current cost for each component is compounded on an annual basis by the number of remaining years to replacement, and the total is used in calculating the monthly reserve contribution that will be necessary to accumulate the required funds in time for replacement.

### **Annual Assessment Increase**

This represents the percentage rate at which the client will increase its assessment to reserves at the end of each year. For example, in order to accumulate \$10,000 in 10 years, you could set aside \$1,000 per year. As an alternative, you could set aside \$795 the first year and increase that amount by 5% each year until the year of replacement. In either case you arrive at the same amount. The idea is that you start setting aside a lower amount and increase that number each year in accordance with the planned percentage. Ideally this figure should be equal to the rate of inflation.

## **Investment Yield Before Taxes**

The average interest rate anticipated by the client based upon its current investment practices.

**Taxes on Interest Yield**

The estimated percentage of interest income that will be set aside to pay income taxes on the interest earned.

**Projected Reserve Balance**

The anticipated reserve balance on the first day of the fiscal year for which this report has been prepared. This is based upon information provided and not audited.

**Percent Fully Funded**

The ratio, at the beginning of the fiscal year, of the actual (or projected) reserve balance to the calculated fully funded balance, expressed as a percentage.

**Phase Increment Detail and/or Age**

Comments regarding aging of the components on the basis of construction date or date of acceptance by the client.

**Monthly (or Quarterly or Annually) Assessment**

The assessment to reserves required by the client each month (or quarter or year).

**Interest Contribution (After Taxes)**

The interest that should be earned on the reserves, net of taxes, based upon their beginning reserve balance and monthly contributions for one year. This figure is averaged for budgeting purposes.

**Total Monthly (or Quarterly or Annual) Allocation**

Sum of the monthly (or quarterly or annually assessment / interest contribution figures.

**Group and Category**

The report may be prepared and sorted either by group (location, building, phase, etc.) or by category (roofing, painting, etc.). The standard report printing format is by category.

**Percentage of Replacement or Repairs**

In some cases, an asset may not be replaced in its entirety or the cost may be shared with a second party. Examples are budgeting for a percentage of replacement of streets over a period of time, or sharing the expense to replace a common wall with a neighboring party.

**Placed-In-Service Date**

The month and year that the asset was placed-in-service. This may be the construction date, the first escrow closure date in a given phase, or the date of the last servicing or replacement.

**Estimated Useful Life**

The estimated useful life of an asset based upon industry standards, manufacturer specifications, visual inspection, location, usage, client standards and prior history. All of these factors are taken into consideration when tailoring the estimated useful life to the particular asset. For example, the carpeting in a hallway or elevator (a heavy traffic area) will not have the same life as the identical carpeting in a seldom-used meeting room or office.

**Adjustment to Useful Life**

Once the useful life is determined, it may be adjusted, up or down, by this separate figure for the current cycle of replacement. This will allow for a current period adjustment without affecting the estimated replacement cycles for future replacements.

**Estimated Remaining Life**

This calculation is completed internally based upon the report's fiscal year date and the date the asset was placed-in-service.

**Replacement Year**

The year that the asset is scheduled to be replaced. The appropriate funds will be available by the first day of the fiscal year for which replacement is anticipated.

**Annual Fixed Reserves**

An optional figure which, if used, will override the normal process of allocating reserves to each asset.

**Fixed Assessment**

An optional figure which, if used, will override all calculations and set the assessment at this amount. This assessment can be set for monthly, quarterly or annually as necessary.

**Salvage Value**

The salvage value of the asset at the time of replacement, if applicable.

**One-Time Replacement**

Notation if the asset is to be replaced on a one-time basis.

**Current Replacement Cost**

The estimated replacement cost effective at the beginning of the fiscal year for which the report is being prepared

**Future Replacement Cost**

The estimated cost to repair or replace the asset at the end of its estimated useful life based upon the current replacement cost and inflation.

**Component Inventory**

The task of selecting and qualifying reserve components. This task can be accomplished through on-site visual, review of client design and organizational documents, a review of established client precedents, and discussion with appropriate client representative(s).

## **A MULTI-PURPOSE TOOL**

Your Whayland Group Report is an important part of your client's budgetary process. Following its recommendations should ensure the client's smooth budgetary transitions from one fiscal year to the next.

In addition, your Whayland Group reserve study serves a variety of useful purposes:

- A reserve analysis study may be required by your accountant during the preparation of the client's annual audit.
- The Whayland Group reserve study is sometimes requested by lending institutions during the process of loan applications.
- Your Whayland Group Report is also a detailed inventory of the client's major assets and serves as a management tool for scheduling, coordinating and planning future repairs and replacements.
- Your Whayland Group Report is a tool that can assist the client in fulfilling its legal and fiduciary obligations for maintaining the facility in a state of good repair.
- Since the Whayland Group reserve analysis study includes measurements and cost estimates of the client's assets, the detail reports may be used as a guide to evaluate the accuracy and price of contractor bids when assets are due to be repaired or replaced.
- Your Whayland Group Report provides a record of the time, cost, and quantities of past reserve replacements. At times the client's management personnel are transitory which may result in the loss of these important records.

# Executive Summary

Middlesex Beach is a 245 unit subdivision development situated on both sides of Delaware State Rt. 1 near Bethany Beach, Delaware. The development was established in 1958. The Whayland Group, LLC prepared this full reserve study for Middlesex beach Association in March 2017. The association operates on a fiscal year basis beginning April 1. This study is for fiscal year (FY) 2017/18 beginning April 1, 2017.

This study was prepared by Robert C. Wheatley, Reserve Specialist #309 as designated by the Community Association Institute. Mr. Wheatley has 39 years experience in the construction and real estate industries on the Delmarva Peninsula, is Chairman of the Sussex County Planning and Zoning Commission, an outside director of Bank of Delmarva, and is the Sussex County Public Member of the Delaware Association of Professional Engineers. He has been engaged in the preparation of reserve studies since 2009.

The study is a full reserve study including a review of the documents furnished by the Association and on-site observation and inventory of the components included in the study. The component list was developed from our review of the documents, site visits, and conversations with Jim Dempsey and Dave Weicking, Association representatives. The component list is current as of March 30, 2017.

The in-service date for each component is the year in which that component was most recently replaced if known or a date inferred by the estimated remaining life based on the observed condition of the component. The components were assigned useful lives and values in accordance with industry standards and our findings. Remaining lives were calculated based on the in-service date with certain adjustments indicated by our site visits. The unit costs used to develop the budget are from national cost estimating services like R. S. Means and Craftsman, consultation with local contractors, and the preparer's cost data and experience.

The majority of replacement expense at Middlesex Beach is asphalt paving replacement and the replacement history of most streets is not well-documented. Asphalt properly installed in an appropriate thickness over a well prepared sub base has a useful life of 20-30 years, sometimes longer depending on maintenance, traffic, exposure to sunlight and ponding/freezing water, and proper drainage. We have assumed that the streets east of Rt.1 will wear faster than those on the west side due exposure to salt water and sand erosion. Dune Road will be repaved in the fall of this year (FY 2017/18). Those on the west side are scheduled to be replaced in 2024. In practice, we encourage you in consult with a qualified professional when the streets are scheduled to be replaced to determine if replacement is actually warranted at that time. If "alligating" is not excessive and any edge breaks or potholes have been repaired regularly is it possible that paving of a particular street could be postponed for a period. Such adjustments to the replace schedule and other changes can be taken into account when the reserve study is updated in future years. We recommend an update every three years.

Reserve studies are based on mathematical financial models designed to project the estimable replacement cost of components that atrophy with normal wear over a period of time. Specific contingent expenses are expenses that do not occur until some unpredictable event occurs. Typically the cost of such expenses may not be estimated accurately in advance. Also, if the numbers are significant, they can skew the results of the reserve study. For those reasons specific contingent expenses are not included in the reserve study, however, we strongly encourage Associations to maintain specific contingent funds as line items in the general budget. We are aware that Middlesex Beach has two specific contingent items:

1. Legal Contingency
2. Beach Replenishment

Legal Contingency, as we understand it, is to cover expenses arising from future litigation and legal dispute resolution. While such activities can be anticipated, they are difficult to predict. We encourage the Association to maintain the Legal Contingency as general budget item and adjust it as necessary.

Beach Replenishment, as we understand it, arises from the Association having the distinction of owning its own beach. This is a contingent expense triggered by weather events whose timing and severity are largely unpredictable. However, history tells us that such events have occurred and are likely to occur again, so maintaining a reserve is crucial; so much so that we strongly encourage the Association to continue to maintain and grow its Beach Replenishment Fund.

The current balances in the Legal Contingency (\$25,000.00 as of 4/1/17) and Beach Replenishment Fund (\$160,807.00 as of 4/1/17) are not included in the Beginning Reserve Account Balance used to calculate reserves for this study.

The study includes three financial models:

**Current Assessment Funding Model (CAFM)** is a cash flow model designed to reflect the result of maintaining the current annual contribution level, reported by the association to be \$72,946.00 last fiscal year.

**Threshold Funding Model (TFM)** is a cash flow model commonly used in the industry. It calculates the minimum annual contributions required for the Association to be adequately funded at all times.

**Component Funding Model (CFM)** is a conservative funding approach based on the concept of 100% fully funding rather than cash flow requirement funding. 100% fully funding means that at any given time, 100% of the funds needed for the replacement of each individual item are available in proportion to the remaining useful life of that item, which generally results in higher contribution requirements and higher account balances.

All three models are based on the following assumptions:

#### Reserve Study Assumptions

Effective Date of Study	April 1, 2017
Length of Study	30 years with 20 additional years*
Number of Units	245 (The resulting per-unit contribution using this number of units is used to adjust the contributions for the commercial units)
Annual Interest Rate Earned on Reserves	0.75% per annum
Tax Rate on Reserve Interest Income	0% - assumed exempt
Annual Inflation Rate	2.0% per annum
Beginning Reserve Account Balance	\$98,680.00**
Minimum Account Balance	\$ 25,000.00



Annual Increase in Reserve Requirement	3.0% per annum

\*Additional years should be calculated for any cash flow model to account for the fact that there is not an actual end date to the requirement for replacements. Otherwise the model would assume no requirement to accumulate funds beyond 30 years.

\*\* The current balances in the Legal Contingency and Beach Replenishment accounts are not included in the Beginning Reserve Account Balance used to calculate reserves for this study.

**The Current Assessment Funding Model indicates that continuing the current level of funding (\$72,946.00 per year) with a 3% annual increase generally maintains a marginally adequate reserve as reflected in the schedule shown on page 2-2.**

**The Threshold Funding Model indicates an annual reserve contribution requirement of \$76,508.00 per year for 2017/18 or \$312.28 per unit per year, increasing at 3% annually as noted in the schedule found on page 2-5. Some Associations prefer a stable contribution requirement over a period of years. The three-year average annual contribution from the Threshold Funding model is \$78,826.00 per year or \$321.73 per unit per year.**

**The Component Funding Model indicates an annual reserve contribution requirement of \$113,804.00 per year for 2017/18 or \$464.51 per unit per year, fluctuating annually as noted in the schedule found on page 2-8.**

The Threshold Funding Model is an efficient cash flow model commonly used to determine the minimum reserve funding requirements. Combined with property and casualty insurance to cover the insurable interests and specific contingent expense reserves and periodic updates of the reserve study, the reserves indicated by this model appear adequate to meet the needs of the Association.

We urge the Association to consult with a qualified attorney to determine the extent to which the Delaware Uniform Common Interest Ownership Act (DUCIOA) applies to your Association and whether or not the Act bears upon the Association's reserve strategy.

The reserve study should be updated every third year for work completed, remaining lives, and budget pricing to recalculate the contribution requirement. **It is important to note that the models do not assume any delinquency. Contributions must be made on time in full.**

The Association also must bear in mind that the reserve fund is for regular, expected repairs and replacements only. It is not intended to fund unexpected or catastrophic losses. The Association must be diligent in insuring itself against acts of God, accidents, and other insurable events. We urge you to consult an insurance specialist in this regard.

Middlesex Beach appears to be a well-managed community. The Association representatives appear engaged and sincerely interested in preserving and enhancing unit owners' investment in the community. We thank you for the privilege of serving you and look forward to a long association with Middlesex Beach.

Submitted by: \_\_\_\_\_  
Robert C. Wheatley

Date: \_\_\_\_\_

**Middlesex Beach Association**  
Bethany Beach, Delaware  
**TWG Current Assessment Funding Model Summary**

Report Date	September 20, 2017
Account Number	201610
Budget Year Beginning	April 01, 2017
Budget Year Ending	March 31, 2018
Total Units	245

<i>Report Parameters</i>	
Inflation	2.00%
Annual Assessment Increase	3.00%
Interest Rate on Reserve Deposit	0.75%
2017 Beginning Balance	\$98,680

***Current Assessment Funding Model Summary of Calculations***

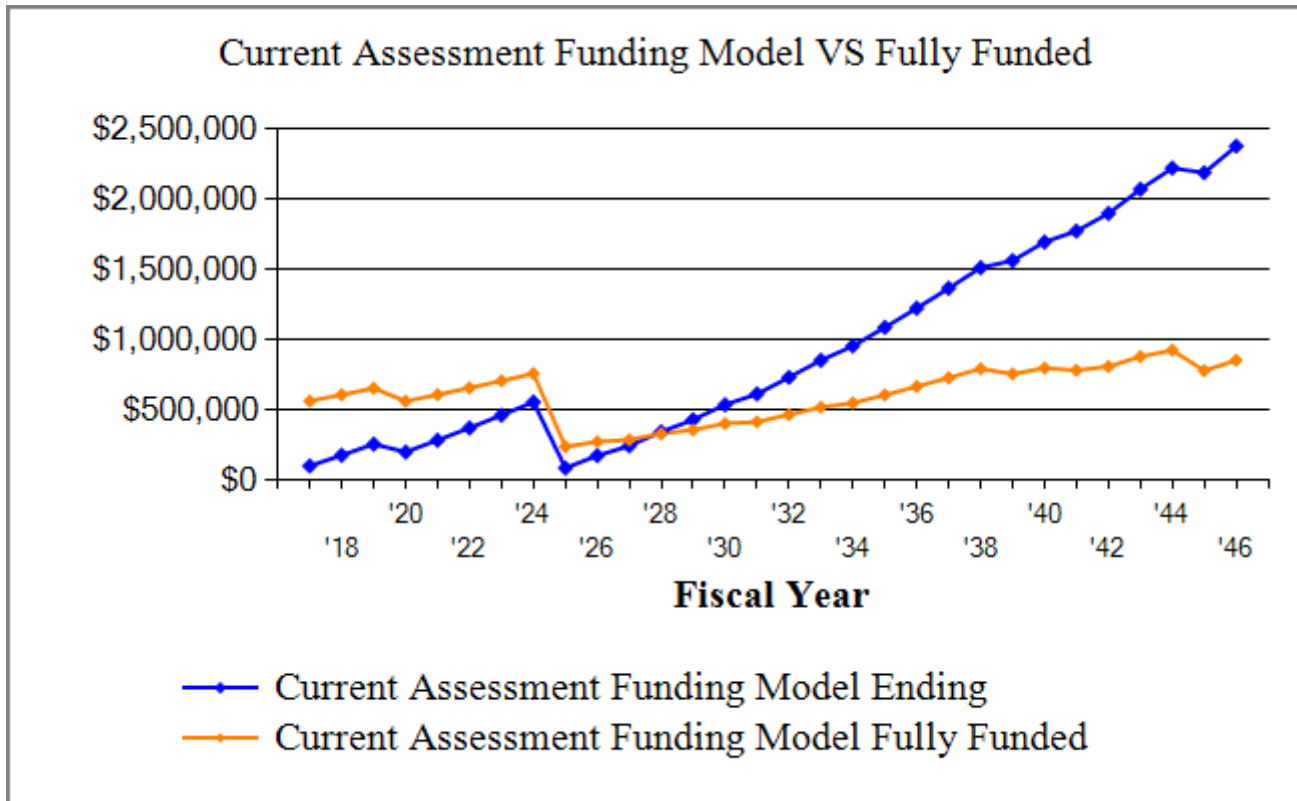
Required Annual Contribution	\$72,946.00
<i>\$297.74 per unit annually</i>	
Average Net Annual Interest Earned	<u>\$745.04</u>
Total Annual Allocation to Reserves	\$73,691.04
<i>\$300.78 per unit annually</i>	

**Middlesex Beach Association**  
**TWG Current Assessment Funding Model Projection**

Beginning Balance: \$98,680

Year	Current Cost	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2017	863,312	72,946	745	72,287	100,084	562,602	18%
2018	880,578	75,134	1,314		176,533	607,293	29%
2019	898,190	77,388	1,904		255,825	653,546	39%
2020	916,154	79,710	1,486	137,432	199,589	561,226	36%
2021	934,477	82,101	2,113		283,803	607,937	47%
2022	953,166	84,564	2,763		371,131	656,290	57%
2023	972,230	87,101	3,437		461,669	706,335	65%
2024	991,674	89,714	4,135		555,518	758,120	73%
2025	1,011,508	92,406	635	563,240	85,319	237,188	36%
2026	1,031,738	95,178	1,291	8,366	173,423	272,577	64%
2027	1,052,373	98,033	1,807	30,475	242,788	286,907	85%
2028	1,073,420	100,974	2,560	2,487	343,836	330,870	104%
2029	1,094,888	104,004	3,197	21,547	429,489	357,086	120%
2030	1,116,786	107,124	3,995	3,881	536,727	402,678	133%
2031	1,139,122	110,337	4,557	39,452	612,169	413,747	148%
2032	1,161,904	113,647	5,444		731,260	466,144	157%
2033	1,185,142	117,057	6,347	2,059	852,605	518,370	164%
2034	1,208,845	120,569	7,106	25,764	954,515	548,362	174%
2035	1,233,022	124,186	8,090		1,086,791	606,152	179%
2036	1,257,683	127,911	9,110		1,223,812	666,034	184%
2037	1,282,836	131,749	10,167		1,365,728	728,068	188%
2038	1,308,493	135,701	11,261		1,512,689	792,318	191%
2039	1,334,663	139,772	11,632	101,569	1,562,524	755,246	207%
2040	1,361,356	143,965	12,619	23,929	1,695,179	797,639	213%
2041	1,388,583	148,284	13,204	82,963	1,773,704	781,698	227%
2042	1,416,355	152,733	14,131	42,292	1,898,276	807,979	235%
2043	1,444,682	157,315	15,417		2,071,007	878,999	236%
2044	1,473,576	162,034	16,539	27,891	2,221,690	924,087	240%
2045	1,503,047	166,895	16,292	216,287	2,188,590	779,032	281%
2046	1,533,108	171,902	17,704		2,378,195	852,830	279%

**Middlesex Beach Association  
TWG Current Funding Model & Fully Funded Comparison Chart**



**The Current Assessment Funding Model** is based on the current annual assessment, parameters, and reserve fund balance. Because it is calculated using the current annual assessment, it will give the accurate projection of how well the association is funded for the next 30 years of planned reserve expenditures.

**Middlesex Beach Association**  
 Bethany Beach, Delaware  
**TWG Threshold Funding Model Summary**

Report Date	September 20, 2017
Account Number	201610
Budget Year Beginning	April 01, 2017
Budget Year Ending	March 31, 2018
Total Units	245

<i>Report Parameters</i>	
Inflation	2.00%
Annual Assessment Increase	3.00%
Interest Rate on Reserve Deposit	0.75%
2017 Beginning Balance	\$98,680

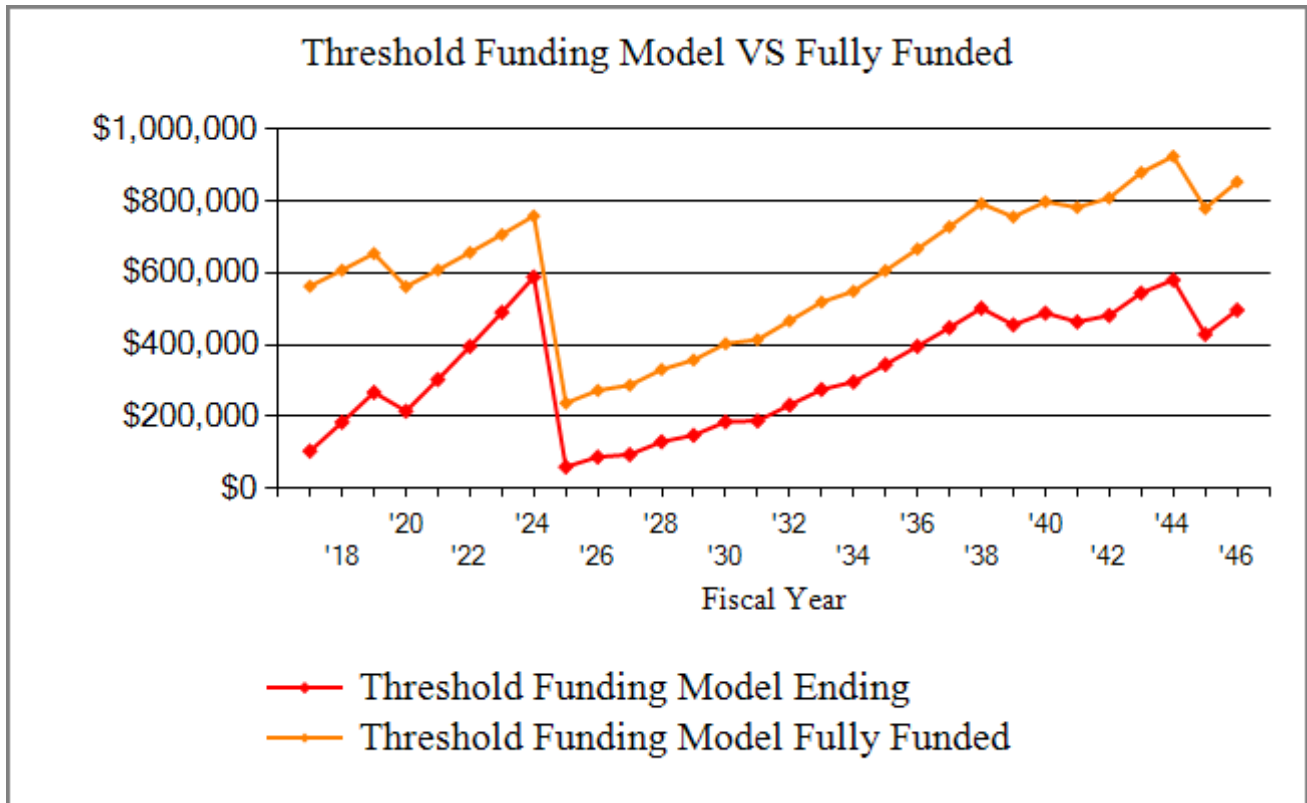
<i>Threshold Funding Model Summary of Calculations</i>	
Required Annual Contribution	\$76,507.71
<i>\$312.28 per unit annually</i>	
Average Net Annual Interest Earned	<u>\$771.75</u>
Total Annual Allocation to Reserves	\$77,279.47
<i>\$315.43 per unit annually</i>	

**Middlesex Beach Association  
TWG Threshold Funding Model Projection**

Beginning Balance: \$98,680

Year	Current Cost	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2017	863,312	76,508	772	72,287	103,672	562,602	18%
2018	880,578	78,803	1,369		183,844	607,293	30%
2019	898,190	81,167	1,988		266,999	653,546	41%
2020	916,154	83,602	1,599	137,432	214,768	561,226	38%
2021	934,477	86,110	2,257		303,134	607,937	50%
2022	953,166	88,693	2,939		394,766	656,290	60%
2023	972,230	91,354	3,646		489,767	706,335	69%
2024	991,674	94,095	4,379		588,240	758,120	78%
2025	1,011,508	34,241	444	563,240	59,685	237,188	25%
2026	1,031,738	35,268	649	8,366	87,237	272,577	32%
2027	1,052,373	36,326	698	30,475	93,787	286,907	33%
2028	1,073,420	37,416	965	2,487	129,682	330,870	39%
2029	1,094,888	38,539	1,100	21,547	147,773	357,086	41%
2030	1,116,786	39,695	1,377	3,881	184,963	402,678	46%
2031	1,139,122	40,885	1,398	39,452	187,795	413,747	45%
2032	1,161,904	42,112	1,724		231,631	466,144	50%
2033	1,185,142	43,375	2,047	2,059	274,994	518,370	53%
2034	1,208,845	44,677	2,204	25,764	296,111	548,362	54%
2035	1,233,022	46,017	2,566		344,694	606,152	57%
2036	1,257,683	47,397	2,941		395,032	666,034	59%
2037	1,282,836	48,819	3,329		447,180	728,068	61%
2038	1,308,493	50,284	3,731		501,195	792,318	63%
2039	1,334,663	51,793	3,386	101,569	454,804	755,246	60%
2040	1,361,356	53,346	3,632	23,929	487,853	797,639	61%
2041	1,388,583	54,947	3,449	82,963	463,285	781,698	59%
2042	1,416,355	56,595	3,582	42,292	481,170	807,979	60%
2043	1,444,682	58,293	4,046		543,509	878,999	62%
2044	1,473,576	60,042	4,317	27,891	579,978	924,087	63%
2045	1,503,047	61,843	3,192	216,287	428,725	779,032	55%
2046	1,533,108	63,698	3,693		496,116	852,830	58%

**Middlesex Beach Association**  
**TWG Threshold Funding Model & Fully Funded Comparison Chart**



The **Threshold Funding Model** calculates the minimum reserve assessments, with the restriction that the reserve balance is not allowed to go below \$0 or other predetermined threshold, during the period of time examined. All funds for planned reserve expenditures will be available on the first day of each fiscal year. The **Threshold Funding Model** allows the client to choose the level of conservative funding they desire by choosing the threshold dollar amount.



**Middlesex Beach Association**  
Bethany Beach, Delaware  
**TWG Component Funding Model Summary**

Report Date	September 20, 2017
Account Number	201610
Budget Year Beginning	April 01, 2017
Budget Year Ending	March 31, 2018
Total Units	245

<i>Report Parameters</i>	
Inflation	2.00%
Interest Rate on Reserve Deposit	0.75%
2017 Beginning Balance	\$98,680

***Component Funding Model Summary of Calculations***

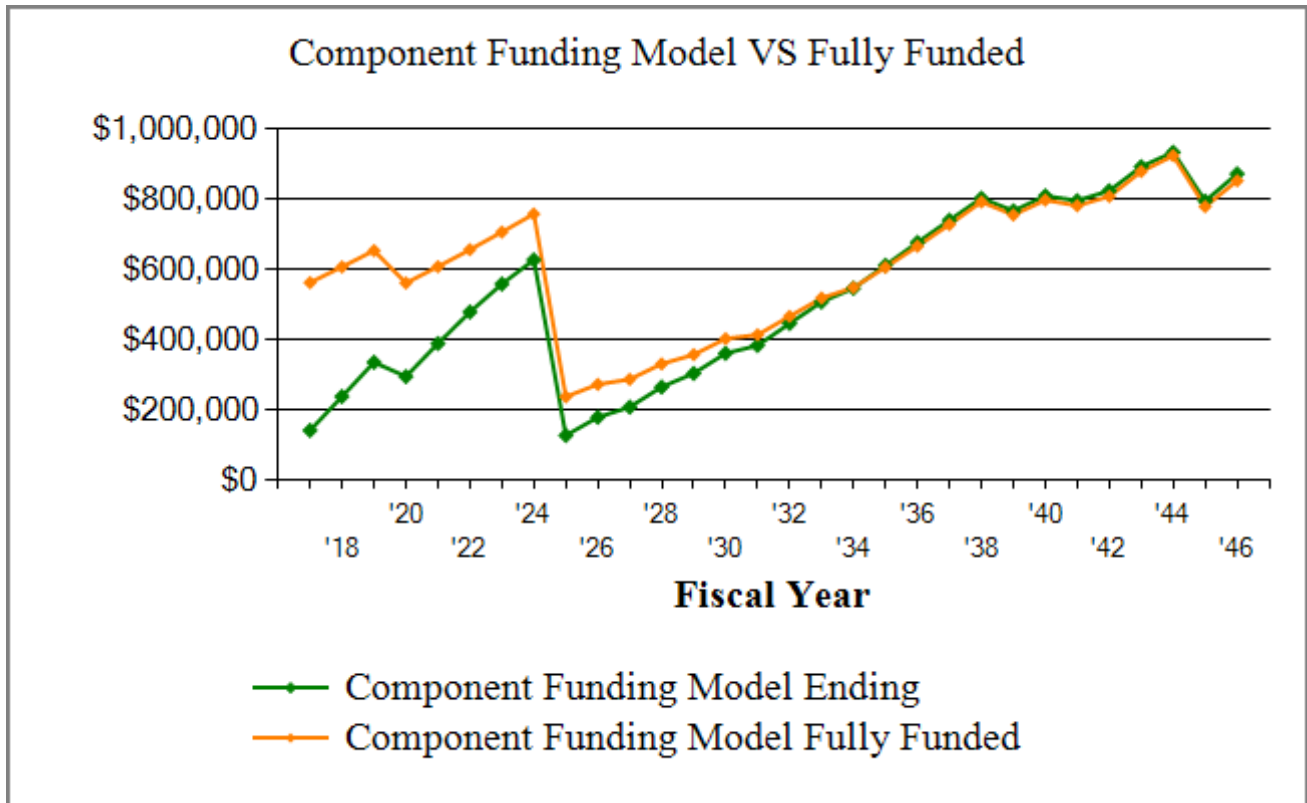
Required Annual Contribution	\$113,803.85
<i>\$464.51 per unit annually</i>	
Average Net Annual Interest Earned	<u>\$1,051.48</u>
Total Annual Allocation to Reserves	\$114,855.33
<i>\$468.80 per unit annually</i>	

**Middlesex Beach Association  
TWG Component Funding Model Projection**

Beginning Balance: \$98,680

Year	Current Cost	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2017	863,312	113,804	1,051	72,287	141,248	562,602	25%
2018	880,578	94,844	1,771		237,863	607,293	39%
2019	898,190	95,064	2,497		335,424	653,546	51%
2020	916,154	94,548	2,194	137,432	294,734	561,226	53%
2021	934,477	91,428	2,896		389,059	607,937	64%
2022	953,166	86,121	3,564		478,744	656,290	73%
2023	972,230	75,758	4,159		558,660	706,335	79%
2024	991,674	63,807	4,669		627,135	758,120	83%
2025	1,011,508	62,025	944	563,240	126,864	237,188	53%
2026	1,031,738	58,883	1,330	8,366	178,711	272,577	66%
2027	1,052,373	58,050	1,547	30,475	207,834	286,907	72%
2028	1,073,420	57,801	1,974	2,487	265,122	330,870	80%
2029	1,094,888	57,876	2,261	21,547	303,711	357,086	85%
2030	1,116,786	58,419	2,687	3,881	360,936	402,678	90%
2031	1,139,122	58,933	2,853	39,452	383,270	413,747	93%
2032	1,161,904	59,349	3,320		445,939	466,144	96%
2033	1,185,142	59,877	3,778	2,059	507,535	518,370	98%
2034	1,208,845	60,428	4,066	25,764	546,264	548,362	100%
2035	1,233,022	60,885	4,554		611,703	606,152	101%
2036	1,257,683	59,966	5,038		676,707	666,034	102%
2037	1,282,836	57,925	5,510		740,142	728,068	102%
2038	1,308,493	56,655	5,976		802,773	792,318	101%
2039	1,334,663	59,943	5,709	101,569	766,856	755,246	102%
2040	1,361,356	60,489	6,026	23,929	809,441	797,639	101%
2041	1,388,583	63,576	5,925	82,963	795,979	781,698	102%
2042	1,416,355	64,255	6,135	42,292	824,076	807,979	102%
2043	1,444,682	62,121	6,646		892,843	878,999	102%
2044	1,473,576	61,959	6,952	27,891	933,863	924,087	101%
2045	1,503,047	71,169	5,916	216,287	794,661	779,032	102%
2046	1,533,108	71,258	6,494		872,414	852,830	102%

**Middlesex Beach Association  
TWG Component Funding Model & Fully Funded Comparison Chart**



The **Component Funding Model's** long-term objective is to provide a plan to a fully funded reserve position over the longest period of time practical. This is the most conservative funding model.

**Middlesex Beach Association**  
**TWG Component Funding Model Assessment & Category Summary**

Description	Replacement Year	Useful Life	Adjustment	Remaining Life	Current Cost	Assigned Reserves	Fully Funded
<b>Streets/Asphalt</b>							
Paving - Addy Road - Commercial	2034	30	0	17	18,400	0	7,973
Paving - Addy Road - East	2020	25	0	3	16,340	14,379	14,379
Paving - Addy Road - West	2025	30	0	8	84,800	0	62,187
Paving - Bayberry Road - Commercial	2042	30	0	25	14,190	0	2,365
Paving - Bayberry Road - East	2020	25	0	3	16,720	3,138	14,714
Paving - Bayberry Road - West	2025	30	0	8	73,720	0	54,061
Paving - Beach Plum Road	2025	30	0	8	76,600	0	56,173
Paving - Bridge Road - Commercial	2041	30	0	24	16,340	0	3,268
Paving - Bridge Road - East	2041	25	0	24	11,440	0	458
Paving - Bridge Road - West	2025	30	0	8	82,000	0	60,133
Paving - Dune Road - Section 1	2017	25	0	0	6,588	6,588	6,588
Paving - Dune Road - Section 2	2017	22	0	0	65,699	65,699	65,699
Paving - Errett Road - Commercial	2044	30	0	27	16,340	0	1,634
Paving - Errett Road - East	2020	25	0	3	12,900	0	11,352
Paving - Errett Road - West	2025	30	0	8	77,600	0	56,907
Paving - Evergreen Road - East	2020	25	0	3	16,720	0	14,714
Paving - Short Road - Commercial	2025	30	0	8	9,000	0	6,600
Paving - Short Road - East	2029	25	0	12	7,990	0	4,155
Paving - Short Road - West	2025	30	0	8	72,000	0	52,800
Streets/Asphalt - Total					\$695,387	\$89,804	\$496,160
<b>Fencing/Security</b>							
Beach Plum Road Fencing East - 6' Stockad..	2029	25	0	12	9,000	0	4,680
Beach Plum Road Fencing East - 6' Stockad..	2031	25	0	14	18,000	0	7,920
Beach Plum Road Fencing West - 6' Shadow..	2041	25	0	24	16,800	0	672
Dune Crossings Fencing - Post and 2-rail		<i>Unfunded</i>					
Guard House Fencing - 6' Stockade	2033	25	0	16	1,500	0	540
Kent Avenue Fencing 6' Shadowbox	2020	25	0	3	7,700	6,776	6,776
Pine Rd. Area Fencing - 6' Chain Link 3 Str..	2020	25	0	3	4,500	0	3,960
Route 1 Fencing - 6' Shadowbox Lot 1	2020	25	0	3	45,850	0	40,348
Route 1 Fencing - 6' Shadowbox Lot 2	2031	25	0	14	11,900	0	5,236
Route 1 Fencing - 6' Shadowbox Lot 3	2040	25	0	23	4,900	0	392
Short Road Fencing - 6' Shadowbox	2020	25	0	3	3,500	0	3,080
Fencing/Security - Total					\$123,650	\$6,776	\$73,604
<b>Equipment</b>							
All-terrain Vehicle	2026	15	0	9	7,000	0	2,800
Golf Cart	2025	15	0	8	5,000	0	2,333
Watering Tank and Trailer	2020	20	0	3	2,275	0	1,934
Equipment - Total					\$14,275		\$7,067
<b>Grounds Components</b>							
Beach Access Ways	2027	20	0	10	20,000	0	10,000
Guardhouse - Refurbish	2027	15	0	10	5,000	0	1,667

**Middlesex Beach Association**  
**TWG Component Funding Model Assessment & Category Summary**

Description	Replacement Year	Useful Life	Adjustment	Remaining Life	Current Cost	Assigned Reserves	Fully Funded
<i>Grounds Components continued...</i>							
Storage Shed	2028	25	0	11	<u>2,000</u>	0	<u>1,120</u>
Grounds Components - Total					<u>\$27,000</u>		<u>\$12,787</u>
<b>Signs</b>							
Community Signs	2020	10	0	3	<u>3,000</u>	<u>2,100</u>	<u>2,100</u>
Signs - Total					<u>\$3,000</u>	<u>\$2,100</u>	<u>\$2,100</u>
Total Asset Summary					<u><u>\$863,312</u></u>	<u><u>\$98,680</u></u>	<u><u>\$591,717</u></u>

Percent Fully Funded	17%
Current Average Liability per Unit (Total Units: 245)	-\$2,012

**Middlesex Beach Association**  
**TWG Distribution of Accumulated Reserves**

Description	Remaining Life	Replacement Year	Assigned Reserves	Fully Funded Reserves
Paving - Dune Road - Section 1	0	2017	6,588	6,588
Paving - Dune Road - Section 2	0	2017	65,699	65,699
Community Signs	3	2020	2,100	2,100
Kent Avenue Fencing 6' Shadowbox	3	2020	6,776	6,776
Paving - Addy Road - East	3	2020	14,379	14,379
Paving - Bayberry Road - East	3	2020	* 3,138	14,714
Paving - Errett Road - East	3	2020		11,352
Paving - Evergreen Road - East	3	2020		14,714
Pine Rd. Area Fencing - 6' Chain Link 3 Stra..	3	2020		3,960
Route 1 Fencing - 6' Shadowbox Lot 1	3	2020		40,348
Short Road Fencing - 6' Shadowbox	3	2020		3,080
Watering Tank and Trailer	3	2020		1,934
Golf Cart	8	2025		2,333
Paving - Addy Road - West	8	2025		62,187
Paving - Bayberry Road - West	8	2025		54,061
Paving - Beach Plum Road	8	2025		56,173
Paving - Bridge Road - West	8	2025		60,133
Paving - Errett Road - West	8	2025		56,907
Paving - Short Road - Commercial	8	2025		6,600
Paving - Short Road - West	8	2025		52,800
All-terrain Vehicle	9	2026		2,800
Beach Access Ways	10	2027		10,000
Guardhouse - Refurbish	10	2027		1,667
Storage Shed	11	2028		1,120
Beach Plum Road Fencing East - 6' Stockade..	12	2029		4,680
Paving - Short Road - East	12	2029		4,155
Beach Plum Road Fencing East - 6' Stockade..	14	2031		7,920
Route 1 Fencing - 6' Shadowbox Lot 2	14	2031		5,236
Guard House Fencing - 6' Stockade	16	2033		540
Paving - Addy Road - Commercial	17	2034		7,973
Route 1 Fencing - 6' Shadowbox Lot 3	23	2040		392
Beach Plum Road Fencing West - 6' Shadow..	24	2041		672
Paving - Bridge Road - Commercial	24	2041		3,268
Paving - Bridge Road - East	24	2041		458
Paving - Bayberry Road - Commercial	25	2042		2,365
Paving - Errett Road - Commercial	27	2044		1,634
Dune Crossings Fencing - Post and 2-rail		Unfunded		

**Middlesex Beach Association**  
**TWG Distribution of Accumulated Reserves**

Description	Remaining Life	Replacement Year	Assigned Reserves	Fully Funded Reserves
Total Asset Summary			\$98,680	\$591,717

	Percent Fully Funded	17%
Current Average Liability per Unit (Total Units: 245)		-\$2,012

*'\*' Indicates Partially Funded*

**Middlesex Beach Association  
TWG Annual Expenditure Detail**

Description	Expenditures
<b>Replacement Year 2017</b>	
<b>Streets/Asphalt</b>	
Paving - Dune Road - Section 1	6,588
Paving - Dune Road - Section 2	65,699
<b>Total for 2017</b>	<b>\$72,287</b>
<i>No Replacement in 2018</i>	
<i>No Replacement in 2019</i>	
<b>Replacement Year 2020</b>	
<b>Streets/Asphalt</b>	
Paving - Addy Road - East	17,340
Paving - Bayberry Road - East	17,743
Paving - Errett Road - East	13,690
Paving - Evergreen Road - East	17,743
<b>Fencing/Security</b>	
Kent Avenue Fencing 6' Shadowbox	8,171
Pine Rd. Area Fencing - 6' Chain Link 3 Strand Top	4,775
Route 1 Fencing - 6' Shadowbox Lot 1	48,656
Short Road Fencing - 6' Shadowbox	3,714
<b>Equipment</b>	
Watering Tank and Trailer	2,414
<b>Signs</b>	
Community Signs	3,184
<b>Total for 2020</b>	<b>\$137,432</b>
<i>No Replacement in 2021</i>	
<i>No Replacement in 2022</i>	
<i>No Replacement in 2023</i>	
<i>No Replacement in 2024</i>	
<b>Replacement Year 2025</b>	
<b>Streets/Asphalt</b>	
Paving - Addy Road - West	99,357
Paving - Bayberry Road - West	86,375
Paving - Beach Plum Road	89,749



**Middlesex Beach Association  
TWG Annual Expenditure Detail**

Description	Expenditures
<b><i>Replacement Year 2025 continued...</i></b>	
Paving - Bridge Road - West	96,076
Paving - Errett Road - West	90,921
Paving - Short Road - Commercial	10,545
Paving - Short Road - West	84,359
<b>Equipment</b>	
Golf Cart	5,858
<b>Total for 2025</b>	<b><u>\$563,240</u></b>
 <b>Replacement Year 2026</b>	
<b>Equipment</b>	
All-terrain Vehicle	8,366
<b>Total for 2026</b>	<b><u>\$8,366</u></b>
 <b>Replacement Year 2027</b>	
<b>Grounds Components</b>	
Beach Access Ways	24,380
Guardhouse - Refurbish	6,095
<b>Total for 2027</b>	<b><u>\$30,475</u></b>
 <b>Replacement Year 2028</b>	
<b>Grounds Components</b>	
Storage Shed	2,487
<b>Total for 2028</b>	<b><u>\$2,487</u></b>
 <b>Replacement Year 2029</b>	
<b>Streets/Asphalt</b>	
Paving - Short Road - East	10,133
<b>Fencing/Security</b>	
Beach Plum Road Fencing East - 6' Stockade Lot 1	11,414
<b>Total for 2029</b>	<b><u>\$21,547</u></b>
 <b>Replacement Year 2030</b>	
<b>Signs</b>	
Community Signs	3,881
<b>Total for 2030</b>	<b><u>\$3,881</u></b>

**Middlesex Beach Association  
TWG Annual Expenditure Detail**

Description	Expenditures
<b>Replacement Year 2031</b>	
<b>Fencing/Security</b>	
Beach Plum Road Fencing East - 6' Stockade Lot 2	23,751
Route 1 Fencing - 6' Shadowbox Lot 2	15,702
<b>Total for 2031</b>	<b>\$39,452</b>
<i>No Replacement in 2032</i>	
<b>Replacement Year 2033</b>	
<b>Fencing/Security</b>	
Guard House Fencing - 6' Stockade	2,059
<b>Total for 2033</b>	<b>\$2,059</b>
<b>Replacement Year 2034</b>	
<b>Streets/Asphalt</b>	
Paving - Addy Road - Commercial	25,764
<b>Total for 2034</b>	<b>\$25,764</b>
<i>No Replacement in 2035</i>	
<i>No Replacement in 2036</i>	
<i>No Replacement in 2037</i>	
<i>No Replacement in 2038</i>	
<b>Replacement Year 2039</b>	
<b>Streets/Asphalt</b>	
Paving - Dune Road - Section 2	101,569
<b>Total for 2039</b>	<b>\$101,569</b>
<b>Replacement Year 2040</b>	
<b>Fencing/Security</b>	
Route 1 Fencing - 6' Shadowbox Lot 3	7,727
<b>Equipment</b>	
Golf Cart	7,884
Watering Tank and Trailer	3,587
<b>Signs</b>	
Community Signs	4,731
<b>Total for 2040</b>	<b>\$23,929</b>

**Middlesex Beach Association  
TWG Annual Expenditure Detail**

Description	Expenditures
<b>Replacement Year 2041</b>	
<b>Streets/Asphalt</b>	
Paving - Bridge Road - Commercial	26,282
Paving - Bridge Road - East	18,401
<b>Fencing/Security</b>	
Beach Plum Road Fencing West - 6' Shadowbox	27,022
<b>Equipment</b>	
All-terrain Vehicle	11,259
<b>Total for 2041</b>	<b>\$82,963</b>
<b>Replacement Year 2042</b>	
<b>Streets/Asphalt</b>	
Paving - Bayberry Road - Commercial	23,280
Paving - Dune Road - Section 1	10,809
<b>Grounds Components</b>	
Guardhouse - Refurbish	8,203
<b>Total for 2042</b>	<b>\$42,292</b>
<i>No Replacement in 2043</i>	
<b>Replacement Year 2044</b>	
<b>Streets/Asphalt</b>	
Paving - Errett Road - Commercial	27,891
<b>Total for 2044</b>	<b>\$27,891</b>
<b>Replacement Year 2045</b>	
<b>Streets/Asphalt</b>	
Paving - Addy Road - East	28,448
Paving - Bayberry Road - East	29,110
Paving - Errett Road - East	22,459
Paving - Evergreen Road - East	29,110
<b>Fencing/Security</b>	
Kent Avenue Fencing 6' Shadowbox	13,406
Pine Rd. Area Fencing - 6' Chain Link 3 Strand Top	7,835
Route 1 Fencing - 6' Shadowbox Lot 1	79,826

**Middlesex Beach Association  
TWG Annual Expenditure Detail**

Description	Expenditures
<i>Replacement Year 2045 continued...</i>	
Short Road Fencing - 6' Shadowbox	6,094
<b>Total for 2045</b>	<b><u>\$216,287</u></b>

**Middlesex Beach Association  
TWG Asset Summary Report**

Description	Asset ID	Date In Service	Current Cost	Useful Life	Adjustment	Remaining	Future Cost	Quantity	Unit Cost
All-terrain Vehicle	1033	2026	7,000	15	0	9	8,366	1 @	7,000.00
Beach Access Ways	1032	2027	20,000	20	0	10	24,380	5 @	4,000.00
Beach Plum Road Fencing East - 6' S..	1005	2029	9,000	25	0	12	11,414	300 @	30.00
Beach Plum Road Fencing East - 6' S..	1006	2031	18,000	25	0	14	23,751	600 @	30.00
Beach Plum Road Fencing West - 6' ..	1007	2041	16,800	25	0	24	27,022	480 @	35.00
Community Signs	1037	2020	3,000	10	0	3	3,184	1 @	3,000.00
Dune Crossings Fencing - Post and 2-..	1010	<i>Unfunded</i>							
Golf Cart	1034	2025	5,000	15	0	8	5,858	1 @	5,000.00
Guard House Fencing - 6' Stockade	1011	2033	1,500	25	0	16	2,059	50 @	30.00
Guardhouse - Refurbish	1031	2027	5,000	15	0	10	6,095	1 @	5,000.00
Kent Avenue Fencing 6' Shadowbox	1008	2020	7,700	25	0	3	8,171	220 @	35.00
Paving - Addy Road - Commercial	1028	2034	18,400	30	0	17	25,764	9200 @	2.00
Paving - Addy Road - East	1027	2020	16,340	25	0	3	17,340	8170 @	2.00
Paving - Addy Road - West	1029	2025	84,800	30	0	8	99,357	42400 @	2.00
Paving - Bayberry Road - Commerci..	1019	2042	14,190	30	0	25	23,280	7095 @	2.00
Paving - Bayberry Road - East	1018	2020	16,720	25	0	3	17,743	8360 @	2.00
Paving - Bayberry Road - West	1020	2025	73,720	30	0	8	86,375	36860 @	2.00
Paving - Beach Plum Road	1014	2025	76,600	30	0	8	89,749	38300 @	2.00
Paving - Bridge Road - Commercial	1025	2041	16,340	30	0	24	26,282	8170 @	2.00
Paving - Bridge Road - East	1024	2041	11,440	25	0	24	18,401	5720 @	2.00
Paving - Bridge Road - West	1026	2025	82,000	30	0	8	96,076	41000 @	2.00
Paving - Dune Road - Section 1	1012	2017	6,588	25	0	0	6,588	3036 @	2.17
Paving - Dune Road - Section 2	1013	2017	65,699	22	0	0	65,699	30276 @	2.17
Paving - Errett Road - Commercial	1022	2044	16,340	30	0	27	27,891	8170 @	2.00
Paving - Errett Road - East	1021	2020	12,900	25	0	3	13,690	6450 @	2.00
Paving - Errett Road - West	1023	2025	77,600	30	0	8	90,921	38800 @	2.00
Paving - Evergreen Road - East	1030	2020	16,720	25	0	3	17,743	8360 @	2.00
Paving - Short Road - Commercial	1016	2025	9,000	30	0	8	10,545	4500 @	2.00
Paving - Short Road - East	1015	2029	7,990	25	0	12	10,133	3995 @	2.00
Paving - Short Road - West	1017	2025	72,000	30	0	8	84,359	36000 @	2.00
Pine Rd. Area Fencing - 6' Chain Li..	1009	2020	4,500	25	0	3	4,775	100 @	45.00
Route 1 Fencing - 6' Shadowbox Lot 1	1001	2020	45,850	25	0	3	48,656	1310 @	35.00
Route 1 Fencing - 6' Shadowbox Lot 2	1002	2031	11,900	25	0	14	15,702	340 @	35.00
Route 1 Fencing - 6' Shadowbox Lot 3	1003	2040	4,900	25	0	23	7,727	140 @	35.00
Short Road Fencing - 6' Shadowbox	1004	2020	3,500	25	0	3	3,714	100 @	35.00
Storage Shed	1036	2028	2,000	25	0	11	2,487	1 @	2,000.00
Watering Tank and Trailer	1035	2020	2,275	20	0	3	2,414	1 @	2,275.00

**Middlesex Beach Association**  
**TWG Detail Report by Category**

**Paving - Addy Road - Commercial - 2034**

Asset ID	1028	9,200 square feet	@ \$2.00
		Asset Cost	\$18,400.00
		Percent Replacement	100%
	Streets/Asphalt	Future Cost	\$25,764.44
Placed in Service	April 2004	Assigned Reserves	<i>none</i>
Useful Life	30		
Replacement Year	2034	Annual Assessment	\$909.82
Remaining Life	17	Interest Contribution	<u>\$6.82</u>
		Reserve Allocation	\$916.64

2" mill and overlay.

**Paving - Addy Road - East - 2020**

Asset ID	1027	8,170 square feet	@ \$2.00
		Asset Cost	\$16,340.00
		Percent Replacement	100%
	Streets/Asphalt	Future Cost	\$17,340.14
Placed in Service	April 1995	Assigned Reserves	\$14,379.20
Useful Life	25		
Replacement Year	2020	Annual Assessment	\$555.95
Remaining Life	3	Interest Contribution	<u>\$112.01</u>
		Reserve Allocation	\$667.97

2" mill and overlay.

**Paving - Addy Road - West - 2025**

Asset ID	1029	42,400 square feet	@ \$2.00
		Asset Cost	\$84,800.00
		Percent Replacement	100%
	Streets/Asphalt	Future Cost	\$99,356.72
Placed in Service	April 1995	Assigned Reserves	<i>none</i>
Useful Life	30		
Replacement Year	2025	Annual Assessment	\$7,714.74
Remaining Life	8	Interest Contribution	<u>\$57.86</u>
		Reserve Allocation	\$7,772.60

2" mill and overlay.

**Middlesex Beach Association**  
**TWG Detail Report by Category**

**Paving - Bayberry Road - Commercial - 2042**

Asset ID	1019	7,095 square feet	@ \$2.00
		Asset Cost	\$14,190.00
		Percent Replacement	100%
	Streets/Asphalt	Future Cost	\$23,280.20
Placed in Service	April 2012	Assigned Reserves	<i>none</i>
Useful Life	30		
Replacement Year	2042	Annual Assessment	\$542.14
Remaining Life	25	Interest Contribution	<u>\$4.07</u>
		Reserve Allocation	\$546.21

2" mill and overlay.

**Paving - Bayberry Road - East - 2020**

Asset ID	1018	8,360 square feet	@ \$2.00
		Asset Cost	\$16,720.00
		Percent Replacement	100%
	Streets/Asphalt	Future Cost	\$17,743.40
Placed in Service	April 1995	Assigned Reserves	\$3,137.76
Useful Life	25		
Replacement Year	2020	Annual Assessment	\$3,066.63
Remaining Life	3	Interest Contribution	<u>\$46.53</u>
		Reserve Allocation	\$3,113.16

2" mill and overlay.

**Paving - Bayberry Road - West - 2025**

Asset ID	1020	36,860 square feet	@ \$2.00
		Asset Cost	\$73,720.00
		Percent Replacement	100%
	Streets/Asphalt	Future Cost	\$86,374.73
Placed in Service	April 1995	Assigned Reserves	<i>none</i>
Useful Life	30		
Replacement Year	2025	Annual Assessment	\$6,706.73
Remaining Life	8	Interest Contribution	<u>\$50.30</u>
		Reserve Allocation	\$6,757.03

2" mill and overlay.

**Middlesex Beach Association**  
**TWG Detail Report by Category**

**Paving - Beach Plum Road - 2025**

Asset ID	1014	38,300 square feet	@ \$2.00
		Asset Cost	\$76,600.00
		Percent Replacement	100%
Streets/Asphalt		Future Cost	\$89,749.11
Placed in Service	April 1995	Assigned Reserves	<i>none</i>
Useful Life	30		
Replacement Year	2025	Annual Assessment	\$6,968.74
Remaining Life	8	Interest Contribution	<u>\$52.27</u>
		Reserve Allocation	\$7,021.00

2" mill and overlay.

**Paving - Bridge Road - Commercial - 2041**

Asset ID	1025	8,170 square feet	@ \$2.00
		Asset Cost	\$16,340.00
		Percent Replacement	100%
Streets/Asphalt		Future Cost	\$26,281.86
Placed in Service	April 2011	Assigned Reserves	<i>none</i>
Useful Life	30		
Replacement Year	2041	Annual Assessment	\$640.00
Remaining Life	24	Interest Contribution	<u>\$4.80</u>
		Reserve Allocation	\$644.80

2" mill and overlay.

**Paving - Bridge Road - East - 2041**

Asset ID	1024	5,720 square feet	@ \$2.00
		Asset Cost	\$11,440.00
		Percent Replacement	100%
Streets/Asphalt		Future Cost	\$18,400.52
Placed in Service	April 2016	Assigned Reserves	<i>none</i>
Useful Life	25		
Replacement Year	2041	Annual Assessment	\$448.08
Remaining Life	24	Interest Contribution	<u>\$3.36</u>
		Reserve Allocation	\$451.44

2" mill and overlay.



**Middlesex Beach Association**  
**TWG Detail Report by Category**

**Paving - Bridge Road - West - 2025**

Asset ID	1026	41,000 square feet	@ \$2.00
		Asset Cost	\$82,000.00
		Percent Replacement	100%
	Streets/Asphalt	Future Cost	\$96,076.07
Placed in Service	April 1995	Assigned Reserves	<i>none</i>
Useful Life	30		
Replacement Year	2025	Annual Assessment	\$7,460.00
Remaining Life	8	Interest Contribution	<u>\$55.95</u>
		Reserve Allocation	\$7,515.95

2" mill and overlay.

**Paving - Dune Road - Section 1 - 2017**

Asset ID	1012	3,036 square feet	@ \$2.17
		Asset Cost	\$6,588.12
		Percent Replacement	100%
	Streets/Asphalt	Future Cost	\$6,588.12
Placed in Service	April 1992	Assigned Reserves	\$6,588.12
Useful Life	25		
Replacement Year	2017	Annual Assessment	No Assessment
Remaining Life	0	Interest Contribution	
		Reserve Allocation	

2" mill and overlay. Section 1 is from Evergreen Road to the south end of Dune Road.

Unit cost is based on bid obtained by the Association.

**Paving - Dune Road - Section 2 - 2017**

Asset ID	1013	30,276 square feet	@ \$2.17
		Asset Cost	\$65,698.92
		Percent Replacement	100%
	Streets/Asphalt	Future Cost	\$65,698.92
Placed in Service	April 1995	Assigned Reserves	\$65,698.92
Useful Life	22		
Replacement Year	2017	Annual Assessment	No Assessment
Remaining Life	0	Interest Contribution	
		Reserve Allocation	

2" mill and overlay. Section 2 is from Evergreen Road to the north end of Dune Road.

Unit cost is based on bid obtained by the Association.

**Middlesex Beach Association**  
**TWG Detail Report by Category**

**Paving - Errett Road - Commercial - 2044**

Asset ID	1022	8,170 square feet	@ \$2.00
		Asset Cost	\$16,340.00
		Percent Replacement	100%
Streets/Asphalt		Future Cost	\$27,890.52
Placed in Service	April 2014	Assigned Reserves	<i>none</i>
Useful Life	30		
Replacement Year	2044	Annual Assessment	\$596.77
Remaining Life	27	Interest Contribution	<u>\$4.48</u>
		Reserve Allocation	\$601.25

2" mill and overlay.

**Paving - Errett Road - East - 2020**

Asset ID	1021	6,450 square feet	@ \$2.00
		Asset Cost	\$12,900.00
		Percent Replacement	100%
Streets/Asphalt		Future Cost	\$13,689.58
Placed in Service	April 1995	Assigned Reserves	<i>none</i>
Useful Life	25		
Replacement Year	2020	Annual Assessment	\$2,888.36
Remaining Life	3	Interest Contribution	<u>\$21.66</u>
		Reserve Allocation	\$2,910.02

2" mill and overlay.

**Paving - Errett Road - West - 2025**

Asset ID	1023	38,800 square feet	@ \$2.00
		Asset Cost	\$77,600.00
		Percent Replacement	100%
Streets/Asphalt		Future Cost	\$90,920.77
Placed in Service	April 1995	Assigned Reserves	<i>none</i>
Useful Life	30		
Replacement Year	2025	Annual Assessment	\$7,059.71
Remaining Life	8	Interest Contribution	<u>\$52.95</u>
		Reserve Allocation	\$7,112.66

2" mill and overlay.

**Middlesex Beach Association**  
**TWG Detail Report by Category**

**Paving - Evergreen Road - East - 2020**

Asset ID	1030	8,360 square feet	@ \$2.00
		Asset Cost	\$16,720.00
		Percent Replacement	100%
Streets/Asphalt		Future Cost	\$17,743.40
Placed in Service	April 1995	Assigned Reserves	<i>none</i>
Useful Life	25		
Replacement Year	2020	Annual Assessment	\$3,743.67
Remaining Life	3	Interest Contribution	<u>\$28.08</u>
		Reserve Allocation	\$3,771.75

2" mill and overlay.

**Paving - Short Road - Commercial - 2025**

Asset ID	1016	4,500 square feet	@ \$2.00
		Asset Cost	\$9,000.00
		Percent Replacement	100%
Streets/Asphalt		Future Cost	\$10,544.93
Placed in Service	April 1995	Assigned Reserves	<i>none</i>
Useful Life	30		
Replacement Year	2025	Annual Assessment	\$818.78
Remaining Life	8	Interest Contribution	<u>\$6.14</u>
		Reserve Allocation	\$824.92

2" mill and overlay.

**Paving - Short Road - East - 2029**

Asset ID	1015	3,995 square feet	@ \$2.00
		Asset Cost	\$7,990.00
		Percent Replacement	100%
Streets/Asphalt		Future Cost	\$10,133.25
Placed in Service	April 2004	Assigned Reserves	<i>none</i>
Useful Life	25		
Replacement Year	2029	Annual Assessment	\$516.67
Remaining Life	12	Interest Contribution	<u>\$3.87</u>
		Reserve Allocation	\$520.54

2" mill and overlay.

**Middlesex Beach Association  
TWG Detail Report by Category**

<b>Paving - Short Road - West - 2025</b>		36,000 square feet	@ \$2.00
Asset ID	1017	Asset Cost	\$72,000.00
		Percent Replacement	100%
	Streets/Asphalt	Future Cost	\$84,359.48
Placed in Service	April 1995	Assigned Reserves	<i>none</i>
Useful Life	30		
Replacement Year	2025	Annual Assessment	\$6,550.25
Remaining Life	8	Interest Contribution	<u>\$49.13</u>
		Reserve Allocation	\$6,599.37

2" mill and overlay.

<b>Streets/Asphalt - Total Current Cost</b>	<b>\$695,387</b>
<b>Assigned Reserves</b>	<b>\$89,804</b>
<b>Fully Funded Reserves</b>	<b>\$496,160</b>

**Middlesex Beach Association**  
**TWG Detail Report by Category**

**Beach Plum Road Fencing East - 6' Stockade Lot 1 - 2029**

Asset ID	1005	300 lineal feet	@ \$30.00
		Asset Cost	\$9,000.00
		Percent Replacement	100%
	Fencing/Security	Future Cost	\$11,414.18
Placed in Service	April 2004	Assigned Reserves	<i>none</i>
Useful Life	25		
Replacement Year	2029	Annual Assessment	\$581.98
Remaining Life	12	Interest Contribution	<u>\$4.36</u>
		Reserve Allocation	\$586.34

"Lot 1" fencing consists of those sections replaced in 2004 noted below:

Bridge Rd. to Addy Rd. 300'

**Beach Plum Road Fencing East - 6' Stockade Lot 2 - 2031**

Asset ID	1006	600 lineal feet	@ \$30.00
		Asset Cost	\$18,000.00
		Percent Replacement	100%
	Fencing/Security	Future Cost	\$23,750.62
Placed in Service	April 2006	Assigned Reserves	<i>none</i>
Useful Life	25		
Replacement Year	2031	Annual Assessment	\$1,030.13
Remaining Life	14	Interest Contribution	<u>\$7.73</u>
		Reserve Allocation	\$1,037.86

"Lot 2" fencing consists of those sections replaced in 2006 noted below:

Bayberry Rd. to Errett Rd. 300'

Erret Rd. to Bridge Rd. 300'

**Beach Plum Road Fencing West - 6' Shadowbox - 2041**

Asset ID	1007	480 lineal feet	@ \$35.00
		Asset Cost	\$16,800.00
		Percent Replacement	100%
	Fencing/Security	Future Cost	\$27,021.74
Placed in Service	April 2016	Assigned Reserves	<i>none</i>
Useful Life	25		
Replacement Year	2041	Annual Assessment	\$658.02
Remaining Life	24	Interest Contribution	<u>\$4.94</u>
		Reserve Allocation	\$662.95

Consists of two sections noted below:

**Middlesex Beach Association**  
**TWG Detail Report by Category**

*Beach Plum Road Fencing West - 6' Shadowbox continued...*

Bridge Rd. to Addy Rd. 280'

Addy Rd. to Mid-block 200'

There is a 140' section from Errett Rd. to mid-block the the Association believes to be owned by 26 Errett Road and is not included in the study.

**Dune Crossings Fencing - Post and 2-rail**

Asset ID	1010	850 lineal feet	@ \$25.00
		Asset Cost	\$21,250.00
		Percent Replacement	100%
		Future Cost	\$21,250.00
Placed in Service	Fencing/Security	Assigned Reserves	<i>none</i>
No Useful Life	April 1995		
		Annual Assessment	No Assessment
		Interest Contribution	
		Reserve Allocation	
Last replacement date assumed.			

**Guard House Fencing - 6' Stockade - 2033**

Asset ID	1011	50 lineal feet	@ \$30.00
		Asset Cost	\$1,500.00
		Percent Replacement	100%
		Future Cost	\$2,059.18
Placed in Service	Fencing/Security	Assigned Reserves	<i>none</i>
Useful Life	April 2008		
Replacement Year	2033	Annual Assessment	\$77.56
Remaining Life	16	Interest Contribution	<u>\$0.58</u>
		Reserve Allocation	\$78.14

**Kent Avenue Fencing 6' Shadowbox - 2020**

Asset ID	1008	220 lineal feet	@ \$35.00
		Asset Cost	\$7,700.00
		Percent Replacement	100%
		Future Cost	\$8,171.30
Placed in Service	Fencing/Security	Assigned Reserves	\$6,776.00
Useful Life	April 1995		
Replacement Year	2020	Annual Assessment	\$261.98
Remaining Life	3	Interest Contribution	<u>\$52.78</u>
		Reserve Allocation	\$314.77

Consists of the following sections:

**Middlesex Beach Association**  
**TWG Detail Report by Category**

*Kent Avenue Fencing 6' Shadowbox continued...*

End of Short Rd. 50'  
 End of Errett Rd. 50'  
 End of Bridge Rd. 120'

**Pine Rd. Area Fencing - 6' Chain Link 3 Strand Top - 2020**

Asset ID	1009	100 lineal feet	@ \$45.00
		Asset Cost	\$4,500.00
		Percent Replacement	100%
		Future Cost	\$4,775.44
Placed in Service	Fencing/Security	Assigned Reserves	<i>none</i>
	April 1995		
Useful Life	25		
Replacement Year	2020	Annual Assessment	\$1,007.57
Remaining Life	3	Interest Contribution	<u>\$7.56</u>
		Reserve Allocation	\$1,015.12

**Route 1 Fencing - 6' Shadowbox Lot 1 - 2020**

Asset ID	1001	1,310 lineal feet	@ \$35.00
		Asset Cost	\$45,850.00
		Percent Replacement	100%
		Future Cost	\$48,656.39
Placed in Service	Fencing/Security	Assigned Reserves	<i>none</i>
	April 1995		
Useful Life	25		
Replacement Year	2020	Annual Assessment	\$10,265.98
Remaining Life	3	Interest Contribution	<u>\$76.99</u>
		Reserve Allocation	\$10,342.98

"Lot 1" consists of those sections replaced in the 1990's noted below:

North C Evergreen to South C Addy	280'
North C Addy to South C Bridge	280'
Midpt Bridge/Errett to South C Erret	140'
North C Errett to South C Bayberry	280'
North C Bayberry to Midpt Bayberry/Short	140'
Midpt Bayberry/Short to North C Short	190'

**Middlesex Beach Association**  
**TWG Detail Report by Category**

**Route 1 Fencing - 6' Shadowbox Lot 2 - 2031**

Asset ID	1002	340 lineal feet	@ \$35.00
		Asset Cost	\$11,900.00
		Percent Replacement	100%
Fencing/Security		Future Cost	\$15,701.80
Placed in Service	April 2006	Assigned Reserves	<i>none</i>
Useful Life	25		
Replacement Year	2031	Annual Assessment	\$681.03
Remaining Life	14	Interest Contribution	<u>\$5.11</u>
		Reserve Allocation	\$686.14

"Lot 2" fencing consists of those sections replaced in 2006 noted below:

South corner MBA to North corner Evergreen 190'

South C addy to North C Addy 50'

South C Errett to North C Errett 50' (last replacement date assumed)

South C Bayberry to North C Bayberry 50' (last replacement date assumed)

**Route 1 Fencing - 6' Shadowbox Lot 3 - 2040**

Asset ID	1003	140 lineal feet	@ \$35.00
		Asset Cost	\$4,900.00
		Percent Replacement	100%
Fencing/Security		Future Cost	\$7,726.81
Placed in Service	April 2015	Assigned Reserves	<i>none</i>
Useful Life	25		
Replacement Year	2040	Annual Assessment	\$197.10
Remaining Life	23	Interest Contribution	<u>\$1.48</u>
		Reserve Allocation	\$198.57

"Lot 3" fencing consists of those sections replaced in 2015 noted below:

North C Bridge to Midpt. Bridge/Errett 140'



**Middlesex Beach Association  
TWG Detail Report by Category**

**Short Road Fencing - 6' Shadowbox - 2020**

Asset ID	1004	100 lineal feet	@ \$35.00
		Asset Cost	\$3,500.00
		Percent Replacement	100%
	Fencing/Security	Future Cost	\$3,714.23
Placed in Service	April 1995	Assigned Reserves	<i>none</i>
Useful Life	25		
Replacement Year	2020	Annual Assessment	\$783.66
Remaining Life	3	Interest Contribution	<u>\$5.88</u>
		Reserve Allocation	\$789.54
<b>Fencing/Security - Total Current Cost</b>		<b>\$123,650</b>	
<b>Assigned Reserves</b>		<b>\$6,776</b>	
<b>Fully Funded Reserves</b>		<b>\$73,604</b>	

**Middlesex Beach Association**  
**TWG Detail Report by Category**

**All-terrain Vehicle - 2026**

Asset ID	1033	1 each	@ \$7,000.00
		Asset Cost	\$7,000.00
		Percent Replacement	100%
	Equipment	Future Cost	\$8,365.65
Placed in Service	April 2011	Assigned Reserves	<i>none</i>
Useful Life	15		
Replacement Year	2026	Annual Assessment	\$575.22
Remaining Life	9	Interest Contribution	<u>\$4.31</u>
		Reserve Allocation	\$579.53

**Golf Cart - 2025**

Asset ID	1034	1 each	@ \$5,000.00
		Asset Cost	\$5,000.00
		Percent Replacement	100%
	Equipment	Future Cost	\$5,858.30
Placed in Service	April 2010	Assigned Reserves	<i>none</i>
Useful Life	15		
Replacement Year	2025	Annual Assessment	\$454.88
Remaining Life	8	Interest Contribution	<u>\$3.41</u>
		Reserve Allocation	\$458.29

**Watering Tank and Trailer - 2020**

Asset ID	1035	1 each	@ \$2,275.00
		Asset Cost	\$2,275.00
		Percent Replacement	100%
	Equipment	Future Cost	\$2,414.25
Placed in Service	April 2000	Assigned Reserves	<i>none</i>
Useful Life	20		
Replacement Year	2020	Annual Assessment	\$509.38
Remaining Life	3	Interest Contribution	<u>\$3.82</u>
		Reserve Allocation	\$513.20

<b>Equipment - Total Current Cost</b>	<b>\$14,275</b>
<b>Assigned Reserves</b>	<b>\$0</b>
<b>Fully Funded Reserves</b>	<b>\$7,067</b>

**Middlesex Beach Association**  
**TWG Detail Report by Category**

**Beach Access Ways - 2027**

Asset ID	1032	5 each	@ \$4,000.00
		Asset Cost	\$20,000.00
		Percent Replacement	100%
Grounds Components		Future Cost	\$24,379.89
Placed in Service	April 2007	Assigned Reserves	<i>none</i>
Useful Life	20		
Replacement Year	2027	Annual Assessment	\$1,503.02
Remaining Life	10	Interest Contribution	<u>\$11.27</u>
		Reserve Allocation	\$1,514.29

This reserve item is to provide funds for periodic maintenance/repair/replacement of beach access ways including walk boards, posts, rails, and related work required due to normal wear and tear.

**Guardhouse - Refurbish - 2027**

Asset ID	1031	1 each	@ \$5,000.00
		Asset Cost	\$5,000.00
		Percent Replacement	100%
Grounds Components		Future Cost	\$6,094.97
Placed in Service	April 2012	Assigned Reserves	<i>none</i>
Useful Life	15		
Replacement Year	2027	Annual Assessment	\$375.75
Remaining Life	10	Interest Contribution	<u>\$2.82</u>
		Reserve Allocation	\$378.57

This reserve item is to provide funds for periodic maintenance/repair/replacement of building coomponents (roof, siding, etc.) and interior repair/freshening.

**Storage Shed - 2028**

Asset ID	1036	1 each	@ \$2,000.00
		Asset Cost	\$2,000.00
		Percent Replacement	100%
Grounds Components		Future Cost	\$2,486.75
Placed in Service	April 2003	Assigned Reserves	<i>none</i>
Useful Life	25		
Replacement Year	2028	Annual Assessment	\$138.84
Remaining Life	11	Interest Contribution	<u>\$1.04</u>
		Reserve Allocation	\$139.89

**Middlesex Beach Association  
TWG Detail Report by Category**

<b>Grounds Components - Total Current Cost</b>	<b>\$27,000</b>
<b>Assigned Reserves</b>	<b>\$0</b>
<b>Fully Funded Reserves</b>	<b>\$12,787</b>

**Middlesex Beach Association  
TWG Detail Report by Category**

<b>Community Signs - 2020</b>		1 lot	@ \$3,000.00
Asset ID	1037	Asset Cost	\$3,000.00
		Percent Replacement	100%
	Signs	Future Cost	\$3,183.62
Placed in Service	April 2010	Assigned Reserves	\$2,100.00
Useful Life	10		
Replacement Year	2020	Annual Assessment	\$218.59
Remaining Life	3	Interest Contribution	<u>\$17.39</u>
		Reserve Allocation	\$235.98

There are several community signs of various sizes and ages. This reserve item is to provide funds for periodic freshening/replacement of individual as needed.

<b>Signs - Total Current Cost</b>	<b>\$3,000</b>
<b>Assigned Reserves</b>	<b>\$2,100</b>
<b>Fully Funded Reserves</b>	<b>\$2,100</b>

**Middlesex Beach Association  
TWG Detail Report by Category**

**Detail Report Summary**

**Grand Total**

Assigned Reserves	\$98,680.00
Annual Contribution	\$76,507.71
Annual Interest	\$771.75
Annual Allocation	\$77,279.46

**Middlesex Beach Association**  
**TWG Category Detail Index**

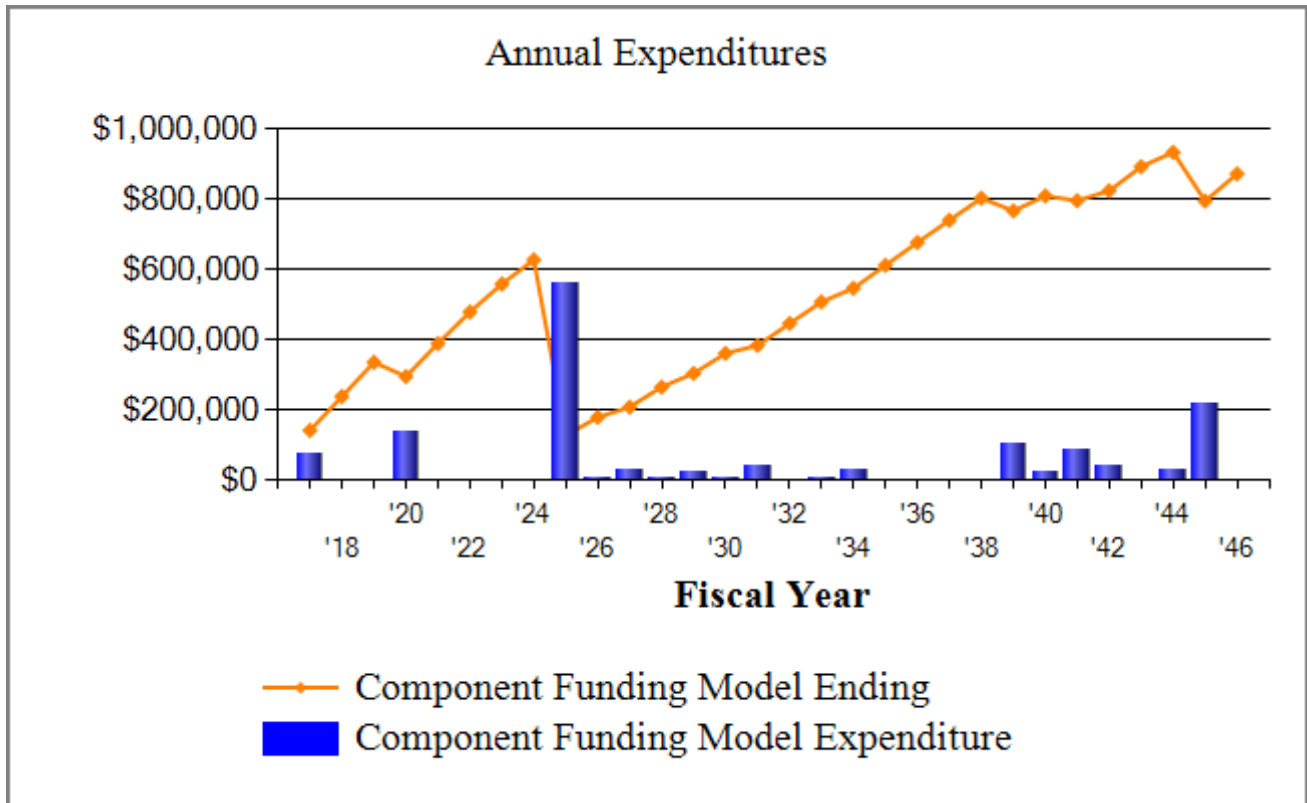
Asset ID	Description	Replacement	Page
<b>Streets/Asphalt</b>			
1028	Paving - Addy Road - Commercial	2034	2-20
1027	Paving - Addy Road - East	2020	2-20
1029	Paving - Addy Road - West	2025	2-20
1019	Paving - Bayberry Road - Commercial	2042	2-21
1018	Paving - Bayberry Road - East	2020	2-21
1020	Paving - Bayberry Road - West	2025	2-21
1014	Paving - Beach Plum Road	2025	2-22
1025	Paving - Bridge Road - Commercial	2041	2-22
1024	Paving - Bridge Road - East	2041	2-22
1026	Paving - Bridge Road - West	2025	2-23
1012	Paving - Dune Road - Section 1	2017	2-23
1013	Paving - Dune Road - Section 2	2017	2-23
1022	Paving - Errett Road - Commercial	2044	2-24
1021	Paving - Errett Road - East	2020	2-24
1023	Paving - Errett Road - West	2025	2-24
1030	Paving - Evergreen Road - East	2020	2-25
1016	Paving - Short Road - Commercial	2025	2-25
1015	Paving - Short Road - East	2029	2-25
1017	Paving - Short Road - West	2025	2-26
<b>Fencing/Security</b>			
1005	Beach Plum Road Fencing East - 6' Stockade Lot 1	2029	2-27
1006	Beach Plum Road Fencing East - 6' Stockade Lot 2	2031	2-27
1007	Beach Plum Road Fencing West - 6' Shadowbox	2041	2-27
1010	Dune Crossings Fencing - Post and 2-rail	Unfunded	2-28
1011	Guard House Fencing - 6' Stockade	2033	2-28
1008	Kent Avenue Fencing 6' Shadowbox	2020	2-28
1009	Pine Rd. Area Fencing - 6' Chain Link 3 Strand Top	2020	2-29
1001	Route 1 Fencing - 6' Shadowbox Lot 1	2020	2-29
1002	Route 1 Fencing - 6' Shadowbox Lot 2	2031	2-30
1003	Route 1 Fencing - 6' Shadowbox Lot 3	2040	2-30
1004	Short Road Fencing - 6' Shadowbox	2020	2-31
<b>Equipment</b>			
1033	All-terrain Vehicle	2026	2-32
1034	Golf Cart	2025	2-32
1035	Watering Tank and Trailer	2020	2-32

**Middlesex Beach Association  
TWG Category Detail Index**

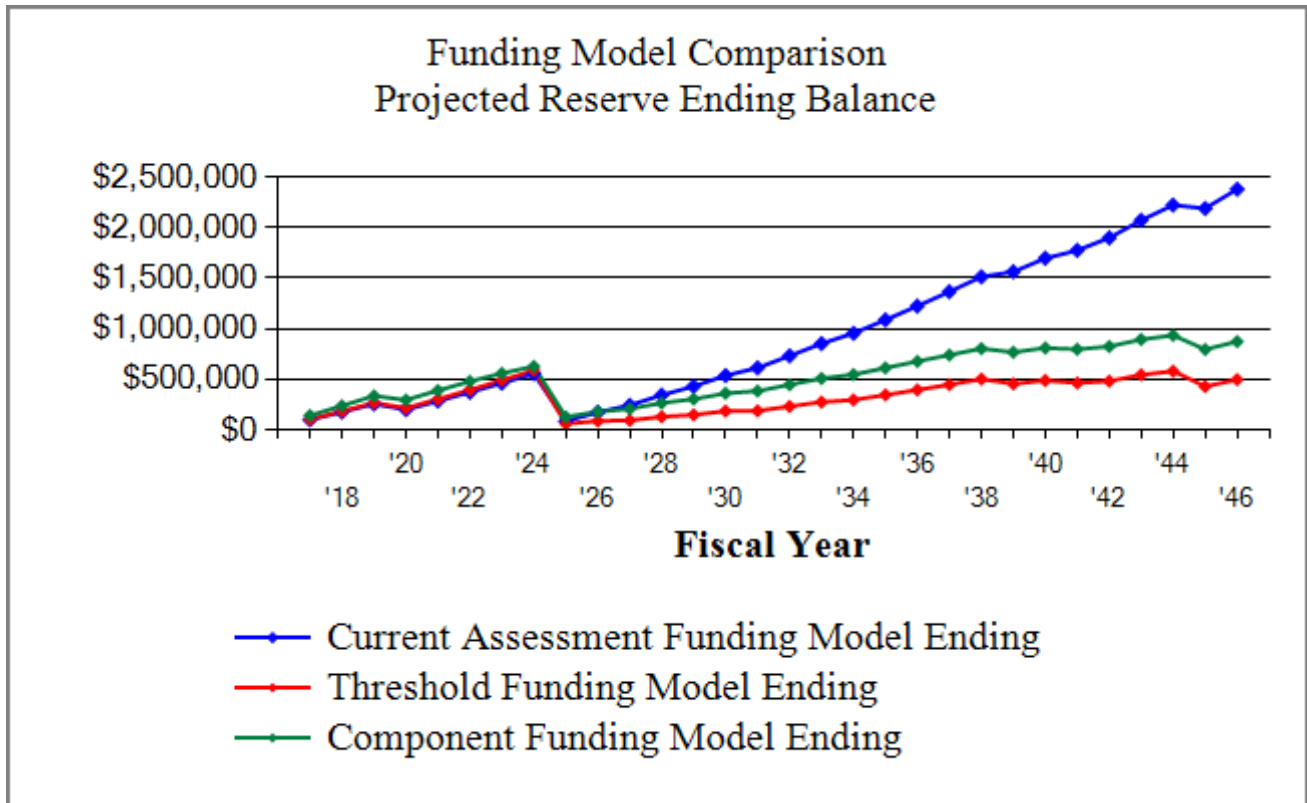
Asset ID	Description	Replacement	Page
<b>Grounds Components</b>			
1032	Beach Access Ways	2027	2-33
1031	Guardhouse - Refurbish	2027	2-33
1036	Storage Shed	2028	2-33
<b>Signs</b>			
1037	Community Signs	2020	2-35
	Total Funded Assets	36	
	Total Unfunded Assets	<u>1</u>	
	Total Assets	37	



**Middlesex Beach Association  
TWG Annual Asset Expenditure Charts**

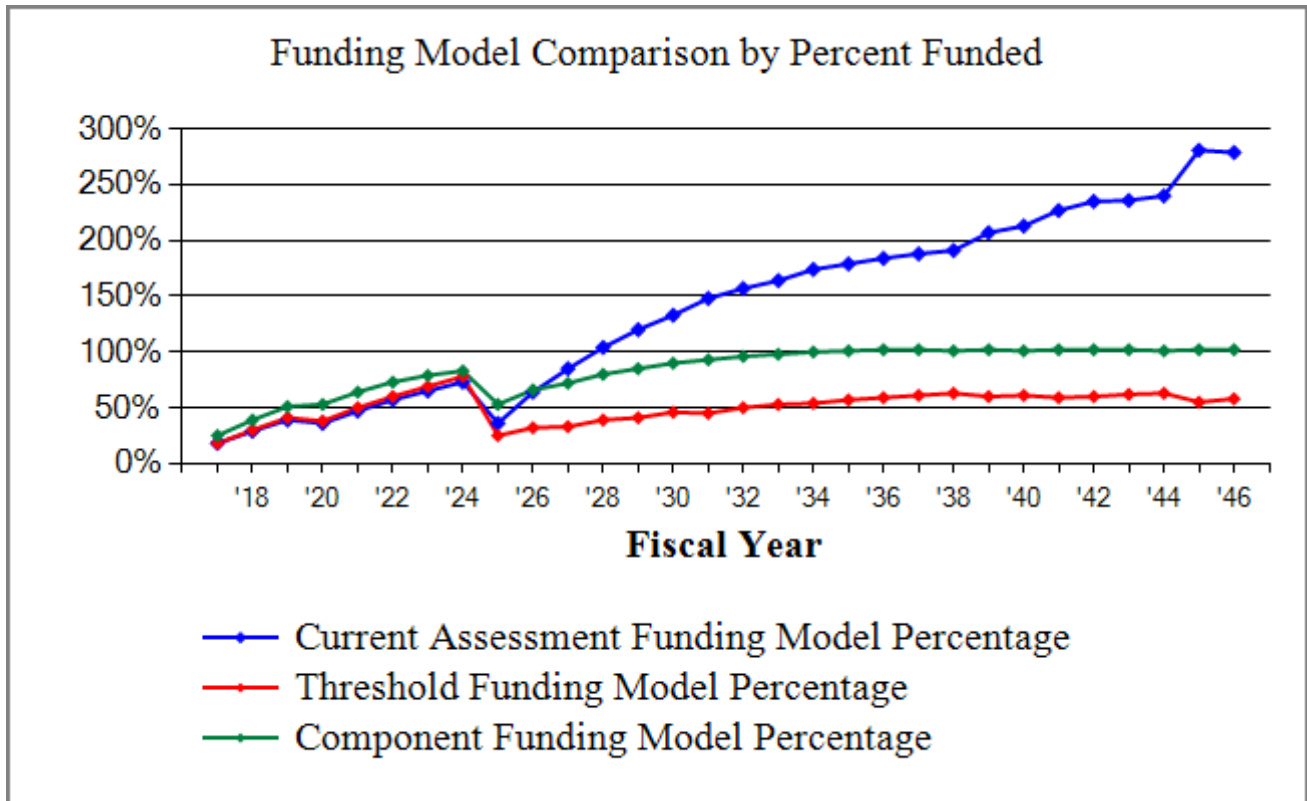


**Middlesex Beach Association  
TWG Funding Model Reserve Ending Balance Comparison Chart**



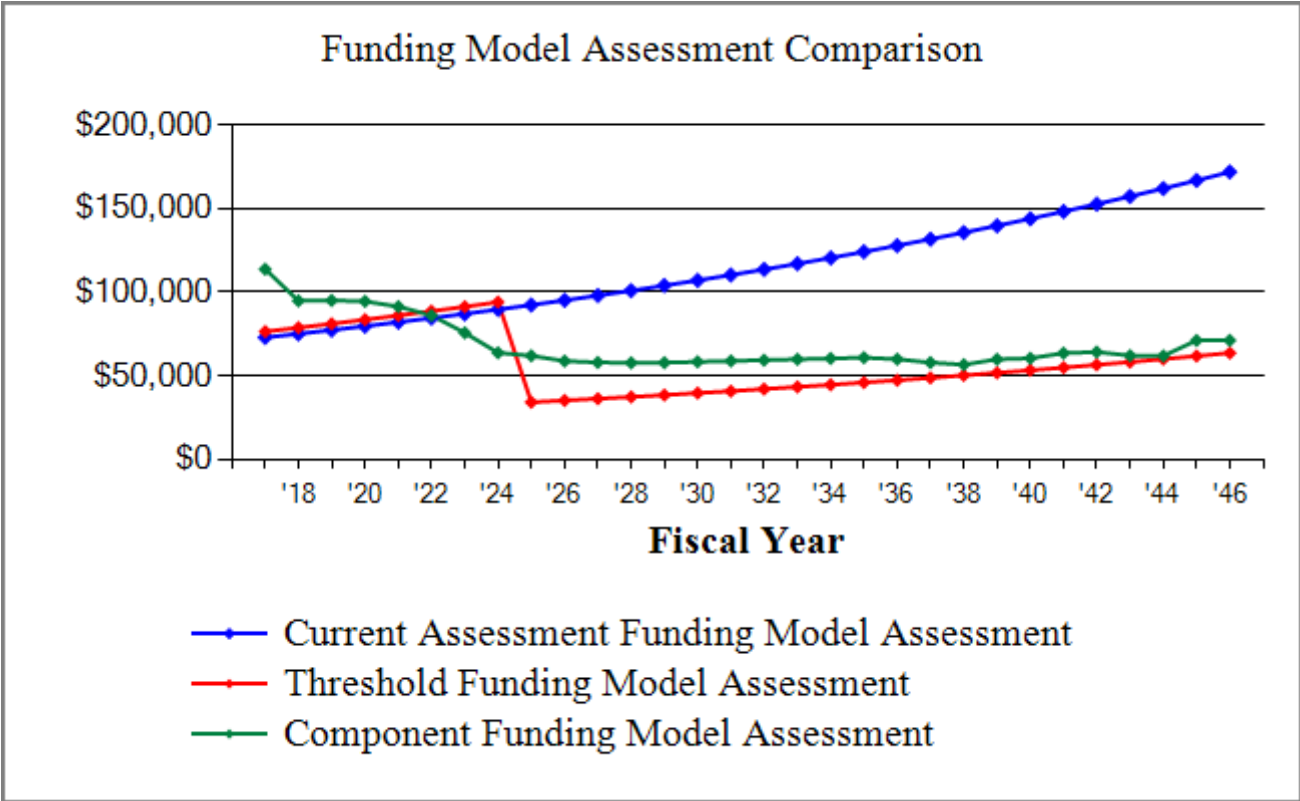
The chart above compares the projected reserve ending balances of the three funding models (Current Assessment Funding Model, Threshold Funding Model and Component Funding Model) over 30 years.

**Middlesex Beach Association  
TWG Funding Model Comparison By Percent Funded Chart**



The chart above compares the three funding models (Current Assessment Funding Model, Threshold Funding Model and Component Funding Model) by the percentage fully funded over 30 years. This allows your association to view and then choose the funding model that might best fit your community's needs.

Middlesex Beach Association  
TWG Funding Model Annual Assessment Comparison Chart



The chart above compares the annual assessment of the three funding models (Current Assessment Funding Model, Threshold Funding Model and Component Funding Model) over 30 years.

**Middlesex Beach Association  
TWG Spread Sheet**

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>Description</b>										
<b>Streets/Asphalt</b>										
Paving - Addy Road - Commercial										
Paving - Addy Road - East				17,340						
Paving - Addy Road - West									99,357	
Paving - Bayberry Road - Commercial										
Paving - Bayberry Road - East				17,743						
Paving - Bayberry Road - West									86,375	
Paving - Beach Plum Road									89,749	
Paving - Bridge Road - Commercial										
Paving - Bridge Road - East										
Paving - Bridge Road - West									96,076	
Paving - Dune Road - Section 1	6,588									
Paving - Dune Road - Section 2	65,699									
Paving - Errett Road - Commercial										
Paving - Errett Road - East				13,690						
Paving - Errett Road - West									90,921	
Paving - Evergreen Road - East				17,743						
Paving - Short Road - Commercial									10,545	
Paving - Short Road - East										
Paving - Short Road - West									84,359	
<b>Streets/Asphalt Total:</b>	<b>72,287</b>			<b>66,517</b>					<b>557,382</b>	
<b>Fencing/Security</b>										
Beach Plum Road Fencing East - 6' Stockade ..										
Beach Plum Road Fencing East - 6' Stockade ..										
Beach Plum Road Fencing West - 6' Shadowb..										
Dune Crossings Fencing - Post and 2-rail	<i>Unfunded</i>									
Guard House Fencing - 6' Stockade										
Kent Avenue Fencing 6' Shadowbox				8,171						
Pine Rd. Area Fencing - 6' Chain Link 3 Stra..				4,775						
Route 1 Fencing - 6' Shadowbox Lot 1				48,656						
Route 1 Fencing - 6' Shadowbox Lot 2										
Route 1 Fencing - 6' Shadowbox Lot 3										
Short Road Fencing - 6' Shadowbox				3,714						
<b>Fencing/Security Total:</b>				<b>65,317</b>						

**Middlesex Beach Association  
TWG Spread Sheet**

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>Description</b>										
Equipment										
All-terrain Vehicle										8,366
Golf Cart									5,858	
Watering Tank and Trailer				2,414						
<b>Equipment Total:</b>				<b>2,414</b>					<b>5,858</b>	<b>8,366</b>
Grounds Components										
Beach Access Ways										
Guardhouse - Refurbish										
Storage Shed										
<b>Grounds Components Total:</b>										
Signs										
Community Signs				3,184						
<b>Signs Total:</b>				<b>3,184</b>						
<b>Year Total:</b>	<b>72,287</b>			<b>137,432</b>					<b>563,240</b>	<b>8,366</b>

**Middlesex Beach Association  
TWG Spread Sheet**

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
<b>Description</b>										
<b>Streets/Asphalt</b>										
Paving - Addy Road - Commercial								25,764		
Paving - Addy Road - East										
Paving - Addy Road - West										
Paving - Bayberry Road - Commercial										
Paving - Bayberry Road - East										
Paving - Bayberry Road - West										
Paving - Beach Plum Road										
Paving - Bridge Road - Commercial										
Paving - Bridge Road - East										
Paving - Bridge Road - West										
Paving - Dune Road - Section 1										
Paving - Dune Road - Section 2										
Paving - Errett Road - Commercial										
Paving - Errett Road - East										
Paving - Errett Road - West										
Paving - Evergreen Road - East										
Paving - Short Road - Commercial										
Paving - Short Road - East			10,133							
Paving - Short Road - West										
<b>Streets/Asphalt Total:</b>			<b>10,133</b>					<b>25,764</b>		
<b>Fencing/Security</b>										
Beach Plum Road Fencing East - 6' Stockade ..			11,414							
Beach Plum Road Fencing East - 6' Stockade ..					23,751					
Beach Plum Road Fencing West - 6' Shadowb..										
Dune Crossings Fencing - Post and 2-rail	<i>Unfunded</i>									
Guard House Fencing - 6' Stockade							2,059			
Kent Avenue Fencing 6' Shadowbox										
Pine Rd. Area Fencing - 6' Chain Link 3 Stra..										
Route 1 Fencing - 6' Shadowbox Lot 1										
Route 1 Fencing - 6' Shadowbox Lot 2					15,702					
Route 1 Fencing - 6' Shadowbox Lot 3										
Short Road Fencing - 6' Shadowbox										
<b>Fencing/Security Total:</b>			<b>11,414</b>		<b>39,452</b>		<b>2,059</b>			

**Middlesex Beach Association  
TWG Spread Sheet**

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
<b>Description</b>										
Equipment										
All-terrain Vehicle										
Golf Cart										
Watering Tank and Trailer										
<b>Equipment Total:</b>										
Grounds Components										
Beach Access Ways	24,380									
Guardhouse - Refurbish	6,095									
Storage Shed		2,487								
<b>Grounds Components Total:</b>	<b>30,475</b>	<b>2,487</b>								
Signs										
Community Signs				3,881						
<b>Signs Total:</b>				<b>3,881</b>						
<b>Year Total:</b>	<b>30,475</b>	<b>2,487</b>	<b>21,547</b>	<b>3,881</b>	<b>39,452</b>		<b>2,059</b>	<b>25,764</b>		



**Middlesex Beach Association  
TWG Spread Sheet**

	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
<b>Description</b>										
<b>Streets/Asphalt</b>										
Paving - Addy Road - Commercial										
Paving - Addy Road - East									28,448	
Paving - Addy Road - West										
Paving - Bayberry Road - Commercial						23,280				
Paving - Bayberry Road - East									29,110	
Paving - Bayberry Road - West										
Paving - Beach Plum Road										
Paving - Bridge Road - Commercial					26,282					
Paving - Bridge Road - East					18,401					
Paving - Bridge Road - West										
Paving - Dune Road - Section 1						10,809				
Paving - Dune Road - Section 2			101,569							
Paving - Errett Road - Commercial								27,891		
Paving - Errett Road - East									22,459	
Paving - Errett Road - West										
Paving - Evergreen Road - East									29,110	
Paving - Short Road - Commercial										
Paving - Short Road - East										
Paving - Short Road - West										
<b>Streets/Asphalt Total:</b>			<b>101,569</b>		<b>44,682</b>	<b>34,089</b>		<b>27,891</b>	<b>109,127</b>	
<b>Fencing/Security</b>										
Beach Plum Road Fencing East - 6' Stockade ..										
Beach Plum Road Fencing East - 6' Stockade ..										
Beach Plum Road Fencing West - 6' Shadowb..					27,022					
Dune Crossings Fencing - Post and 2-rail	<i>Unfunded</i>									
Guard House Fencing - 6' Stockade										
Kent Avenue Fencing 6' Shadowbox									13,406	
Pine Rd. Area Fencing - 6' Chain Link 3 Stra..									7,835	
Route 1 Fencing - 6' Shadowbox Lot 1									79,826	
Route 1 Fencing - 6' Shadowbox Lot 2										
Route 1 Fencing - 6' Shadowbox Lot 3				7,727						
Short Road Fencing - 6' Shadowbox									6,094	
<b>Fencing/Security Total:</b>				<b>7,727</b>	<b>27,022</b>				<b>107,160</b>	

**Middlesex Beach Association  
TWG Spread Sheet**

	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
<b>Description</b>										
Equipment										
All-terrain Vehicle					11,259					
Golf Cart				7,884						
Watering Tank and Trailer				3,587						
<b>Equipment Total:</b>				<b>11,472</b>	<b>11,259</b>					
Grounds Components										
Beach Access Ways										
Guardhouse - Refurbish						8,203				
Storage Shed										
<b>Grounds Components Total:</b>						<b>8,203</b>				
Signs										
Community Signs				4,731						
<b>Signs Total:</b>				<b>4,731</b>						
<b>Year Total:</b>			<b>101,569</b>	<b>23,929</b>	<b>82,963</b>	<b>42,292</b>		<b>27,891</b>	<b>216,287</b>	

**Middlesex Beach Association  
TWG Asset Current Cost by Category**

