LEVEL 2 REPLACEMENT RESERVE REPORT FY 2022
WYNBROOKE



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WYNBROOKE

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2022 Wynbrooke v1 11-15-2021

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REPLACEMENT RESERVE REPORT

WYNBROOKE

MURRELLS INLET, SOUTH CAROLINA
November 9, 2021



Description. Wynbrooke is a Homeowner's Association located in Murrells Inlet, South Carolina. Constructed in 2003, the community consists of 321 Homes and a Pool House. The survey examined the common elements of the property, including:

- Entry Monument, Signage, Roads, and Parking
- Sidewalks and Footbridge
- Fencing and Mailbox Units
- Stormwater Management, Pond, and Fountains
- Exterior Pool
- Building Exteriors

EXECUTIVE SUMMARY
This Reserve Study has been prepared for the Wynbrooke for the Fiscal Year 2022 covering the period from January 1, 2022 to December 31, 2022. The Replacement Reserves Starting Balance as of January 1, 2022 are proposed to be $897,945. The reported Current Annual Funding for Reserves is $226,596. The Recommended Annual Reserve Funding level for 2022 is $285,219.

The current Annual Funding is inadequate to meet the anticipated cost of roofing replacement for all buildings in the community in 2044. After that replacement project, the Annual Funding is more in line with the current Annual Contribution. See Page A.1 and A.4 for funding details.

Miller+Dodson will be happy to discuss a gradual increase in funding in order to meet the required balance if you desire.

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Replacement Reserve Analysis

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Replacement Reserve Inventory
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Projected Annual Replacements
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Overview, Standard Terms, and Definitions

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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 Miller+Dodson in 2015. 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 web site, we have developed videos addressing frequently asked topics. In addition, there are posted links covering a variety of subjects under the resources page of our web site at mdareserves.com.

Purpose. The purpose of this Replacement Reserve Study is to provide Wynbrooke (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. The alternative Component Method of funding is provided in the Appendix.

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

- The Request for Proposal submitted and executed by the Association.

- Miller+Dodson performed a visual evaluation on November 9, 2021 to determine a remaining useful life and replacement cost for the commonly owned elements of this facility.

- This study contains additional recommendations to address inflation for the Cash Flow Method only. For this recommendation, Miller+Dodson uses the Producers Price Index (PPI), which gauges inflation in manufacturing and construction. Please see page A5 for further details.

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

Acknowledgment. Miller+Dodson Associates would like to acknowledge the assistance and input of Mr. Mike Butryn (President) and Ms. Gail Addenbrooke (Treasurer) who provided very helpful insight into the current operations of the property.

Analyst's Credentials. Mr. Gary D. Freeman, AIA, CCS, NCARB holds a Bachelor's Degree in Architecture from Mississippi State University. Mr. Freeman is a registered Architect in the states of South Carolina, North Carolina, Georgia, and Mississippi. He has over 35 years of experience as a practicing architect with a strong focus in the last 25 years in the area of forensics in buildings and assessments. He is President of Gary Freeman Architect Inc., and a Reserve Specialist for Miller+Dodson Associates.

Respectfully Submitted,

millerdodson
CAPITAL RESERVE CONSULTANTS

Gary Freeman
Gary D. Freeman, RS

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SECTION A - FINANCIAL ANALYSIS

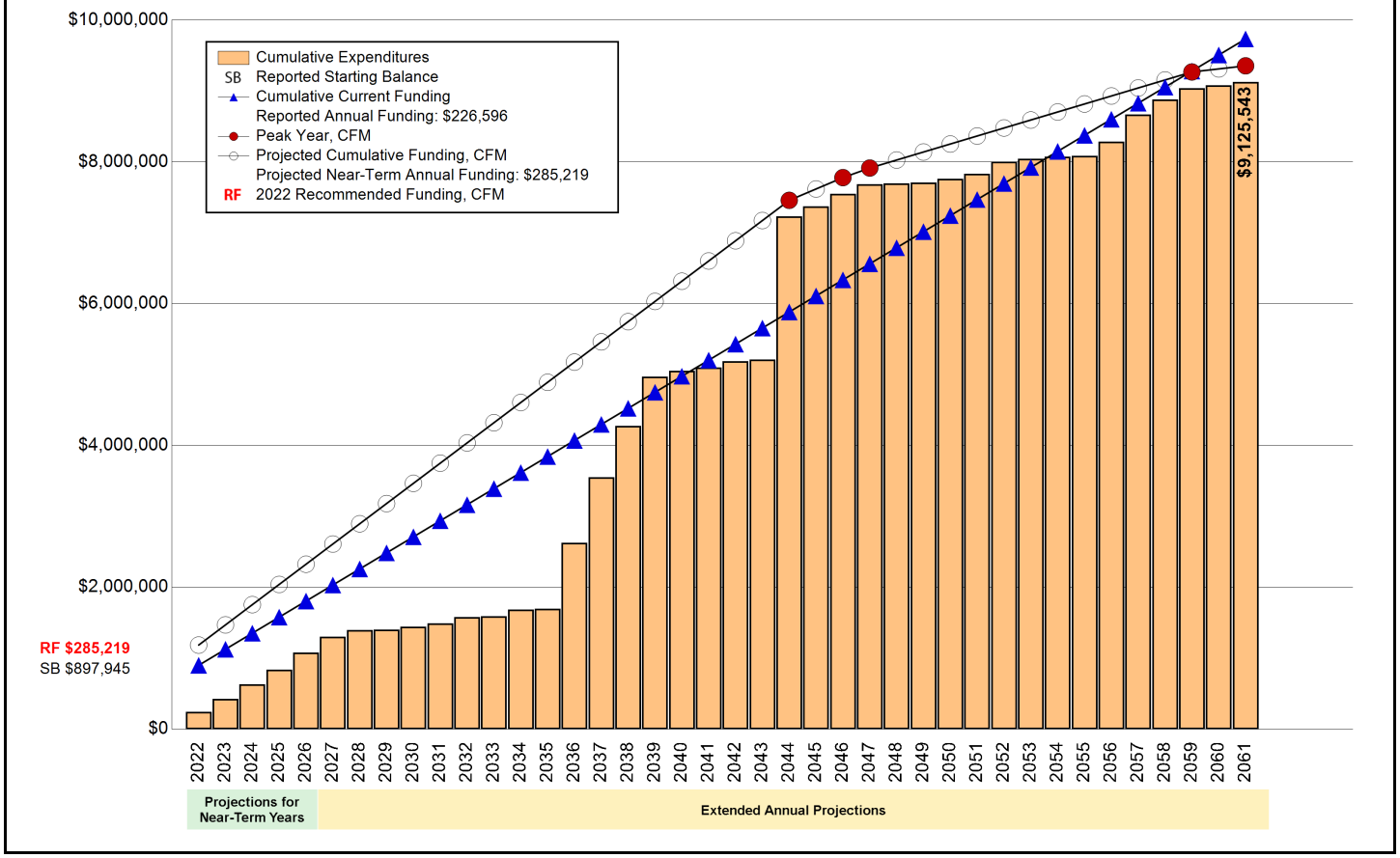
The Wynbrooke Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 66 Projected Replacements identified in the Replacement Reserve Inventory.

$285,219 **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2022**
$74.04 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.

Wynbrooke reports a Starting Balance of $897,945 and Annual Funding totaling $226,596. The reported Current Annual Funding of $226,596 is inadequate to fund projected replacements starting in 2039. See Page A.3 for a more detailed evaluation.

#1 - Cumulative Replacement Reserve Funding and Expenditures Graph



Excerpt rom the Executive Summary: The current Annual Funding is inadequate to meet the anticipated cost of roofing replacement for all buildings in the community in 2044. After that replacement project, the Annual Funding is more in line with the current Annual Contribution.

REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

The Wynbrooke 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.

2022 **STUDY YEAR**

The Association reports that their accounting year begins on January 1, and the Study Year, the first year evaluated by the Replacement Reserve Analysis, begins on January 1, 2022.

40 Years **STUDY PERIOD**

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

$897,945 **STARTING BALANCE**

The Association reports Replacement Reserves on Deposit totaling $897,945 at the start of the Study Year.

Level Two **LEVEL OF SERVICE**

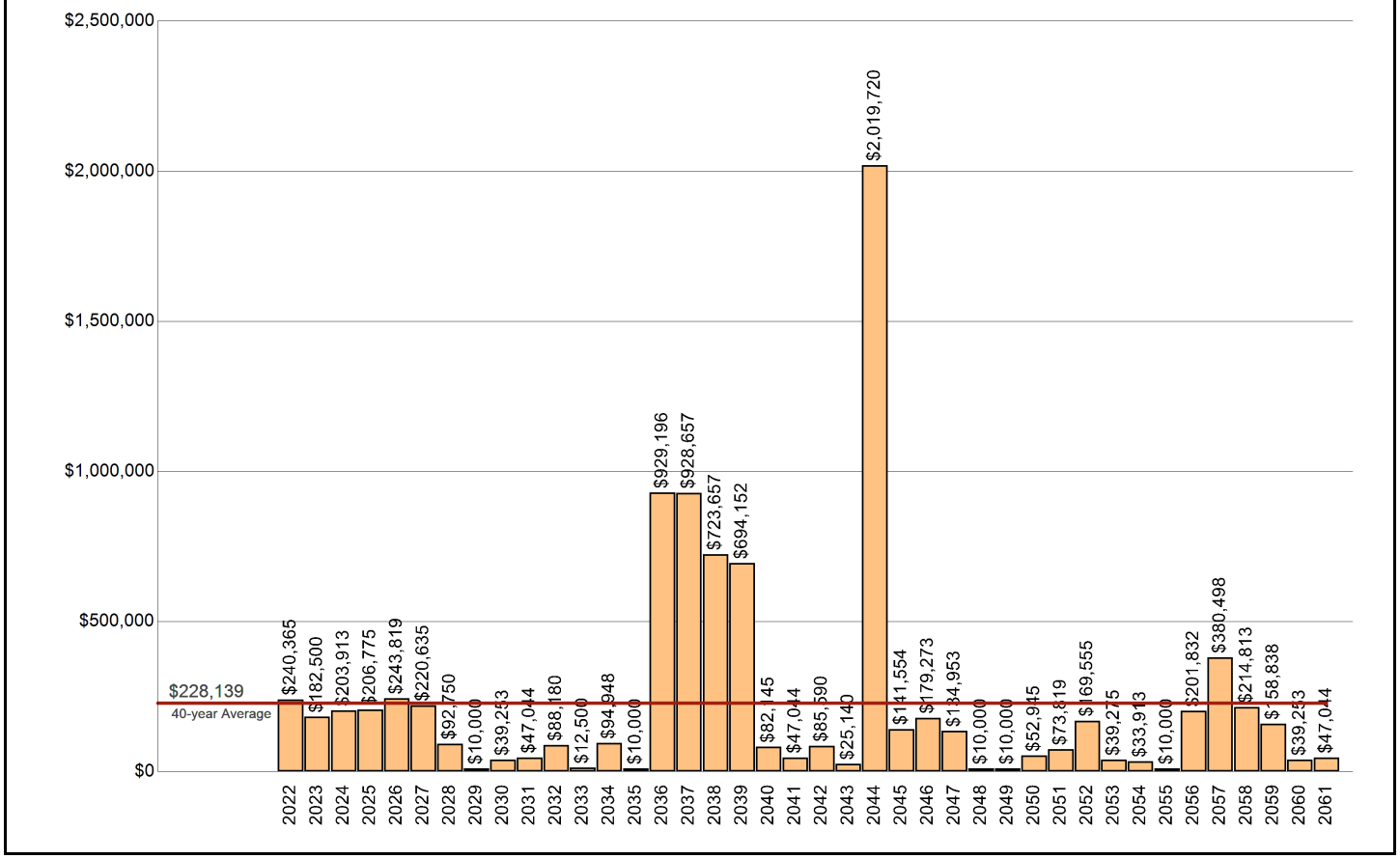
The Replacement Reserve Inventory has been developed in compliance with the National Reserve Study Standards for a Level Two Study, as defined by the Community Associations Institute (CAI).

$9,125,543 **REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS**

The Wynbrooke Replacement Reserve Inventory identifies 66 items that will require periodic replacement, which are to be funded from Replacement Reserves. We estimate the cost of these replacements will be $9,125,543 over the 40-year Study Period. The Projected Replacements are divided into 3 major categories starting on Page B.3. Pages B.1-B.2 provide detailed information on the Replacement Reserve Inventory.

#2 - Annual Expenditures for Projected Replacements Graph

This graph shows annual expenditures for Projected Replacements over the 40-year Study Period. The red line shows the average annual expenditure of $228,139. Section C provides a year by year Calendar of these expenditures.



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 $9,125,543 of Projected Expenditures over the 40-year Study Period and the impact of the Association continuing to fund Replacement Reserves at the current level are detailed in Table 3.

#3 - Table of Annual Expenditures and Current Funding Data - Years 1 through 40

Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Starting Balance	$897,945									
Projected Replacements	($240,365)	($182,500)	($203,913)	($206,775)	($243,819)	($220,635)	($92,750)	($10,000)	($39,253)	($47,044)
Annual Deposit	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596
End of Year Balance	$884,176	$928,272	$950,956	$970,777	$953,554	$959,515	$1,093,361	$1,309,957	$1,497,300	$1,676,852
Cumulative Expenditures	($240,365)	($422,865)	($626,777)	($833,552)	($1,077,371)	($1,298,006)	($1,390,756)	($1,400,756)	($1,440,009)	($1,487,053)
Cumulative Receipts	$1,124,541	$1,351,137	$1,577,733	$1,804,329	$2,030,925	$2,257,521	$2,484,117	$2,710,713	$2,937,309	$3,163,905
Year	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**
Projected Replacements	($88,180)	($12,500)	($94,948)	($10,000)	($929,196)	($928,657)	($723,657)	($694,152)	($82,145)	($47,044)
Annual Deposit	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596
End of Year Balance	$1,815,268	$2,029,364	$2,161,012	$2,377,608	$1,675,009	$972,948	$475,888	$8,332	$152,783	$332,335
Cumulative Expenditures	($1,575,233)	($1,587,733)	($1,682,681)	($1,692,681)	($2,621,877)	($3,550,533)	($4,274,190)	($4,968,341)	($5,050,486)	($5,097,530)
Cumulative Receipts	$3,390,501	$3,617,097	$3,843,693	$4,070,289	$4,296,885	$4,523,481	$4,750,077	$4,976,673	$5,203,269	$5,429,865
Year	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**
Projected Replacements	($85,590)	($25,140)	($2,019,720)	($141,554)	($179,273)	($134,953)	($10,000)	($10,000)	($52,945)	($73,819)
Annual Deposit	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596
End of Year Balance	$473,341	$674,797	($1,118,327)	($1,033,285)	($985,962)	($894,319)	($677,723)	($461,127)	($287,476)	($134,699)
Cumulative Expenditures	($5,183,120)	($5,208,260)	($7,227,980)	($7,369,534)	($7,548,807)	($7,683,760)	($7,693,760)	($7,703,760)	($7,756,705)	($7,830,524)
Cumulative Receipts	$5,656,461	$5,883,057	$6,109,653	$6,336,249	$6,562,845	$6,789,441	$7,016,037	$7,242,633	$7,469,229	$7,695,825
Year	**2052**	**2053**	**2054**	**2055**	**2056**	**2057**	**2058**	**2059**	**2060**	**2061**
Projected Replacements	($169,555)	($39,275)	($33,913)	($10,000)	($201,832)	($380,498)	($214,813)	($158,838)	($39,253)	($47,044)
Annual Deposit	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596	$226,596
End of Year Balance	($77,658)	$109,663	$302,346	$518,942	$543,707	$389,805	$401,588	$469,347	$656,690	$836,242
Cumulative Expenditures	($8,000,079)	($8,039,354)	($8,073,267)	($8,083,267)	($8,285,098)	($8,665,596)	($8,880,409)	($9,039,246)	($9,078,499)	($9,125,543)
Cumulative Receipts	$7,922,421	$8,149,017	$8,375,613	$8,602,209	$8,828,805	$9,055,401	$9,281,997	$9,508,593	$9,735,189	$9,961,785

EVALUATION OF CURRENT FUNDING

The evaluation of Current Funding (Starting Balance of $897,945 & annual funding of $226,596) 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 66 Projected Replacements identified in the Replacement Reserve Inventory and that the Association will continue Annual Funding of $226,596 throughout the 40-year Study Period.

Annual Funding of $226,596 is approximately 79 percent of the $285,219 recommended Annual Funding calculated by the Cash Flow Method for 2022, the Study Year.

See the Executive Summary for the Current Funding Statement.

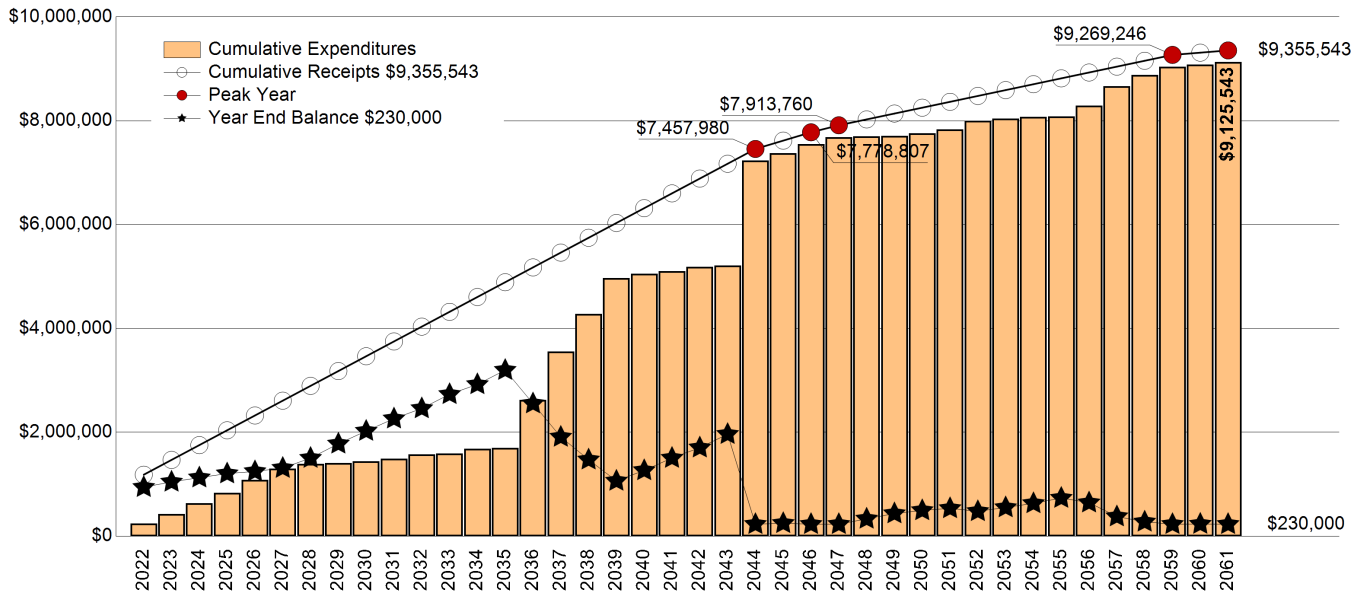
CASH FLOW METHOD FUNDING

$285,219 **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2022**
$74.04 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 2044 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of $7,227,980 of replacements from 2022 to 2044. Recommended funding is anticipated to decline in 2045. Peak Years are identified in Chart 4 and Table 5.
- **Threshold (Minimum Balance).** The calculations assume a Minimum Balance of $230,000 will always be held in reserve, which is calculated by rounding the 12-month 40-year average annual expenditure of $228,139 as shown on Graph #2.
- **Cash Flow Method Study Period.** Cash Flow Method calculates funding for $9,125,543 of expenditures over the 40-year Study Period. It does not include funding for any projects beyond 2061 and in 2061, the end of year balance will always be the Minimum Balance.

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



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

Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Starting Balance	$897,945									
Projected Replacements	($240,365)	($182,500)	($203,913)	($206,775)	($243,819)	($220,635)	($92,750)	($10,000)	($39,253)	($47,044)
Annual Deposit	$285,219	$285,219	$285,219	$285,219	$285,219	$285,219	$285,219	$285,219	$285,219	$285,219
End of Year Balance	$942,799	$1,045,518	$1,126,825	$1,205,269	$1,246,668	$1,311,252	$1,503,721	$1,778,940	$2,024,906	$2,263,081
Cumulative Expenditures	($240,365)	($422,865)	($626,777)	($833,552)	($1,077,371)	($1,298,006)	($1,390,756)	($1,400,756)	($1,440,009)	($1,487,053)
Cumulative Receipts	$1,183,164	$1,468,383	$1,753,602	$2,038,821	$2,324,040	$2,609,258	$2,894,477	$3,179,696	$3,464,915	$3,750,134
Year	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**
Projected Replacements	($88,180)	($12,500)	($94,948)	($10,000)	($929,196)	($928,657)	($723,657)	($694,152)	($82,145)	($47,044)
Annual Deposit	$285,219	$285,219	$285,219	$285,219	$285,219	$285,219	$285,219	$285,219	$285,219	$285,219
End of Year Balance	$2,460,120	$2,732,839	$2,923,110	$3,198,329	$2,554,352	$1,910,914	$1,472,477	$1,063,544	$1,266,618	$1,504,793
Cumulative Expenditures	($1,575,233)	($1,587,733)	($1,682,681)	($1,692,681)	($2,621,877)	($3,550,533)	($4,274,190)	($4,968,341)	($5,050,486)	($5,097,530)
Cumulative Receipts	$4,035,353	$4,320,572	$4,605,791	$4,891,010	$5,176,229	$5,461,447	$5,746,666	$6,031,885	$6,317,104	$6,602,323
Year	**2042**	**2043**	**1st Peak - 2044**	**2045**	**2nd Peak - 2046**	**3rd Peak - 2047**	**2048**	**2049**	**2050**	**2051**
Projected Replacements	($85,590)	($25,140)	($2,019,720)	($141,554)	($179,273)	($134,953)	($10,000)	($10,000)	($52,945)	($73,819)
Annual Deposit	$285,219	$285,219	$285,219	$160,414	$160,414	$134,953	$112,957	$112,957	$112,957	$112,957
End of Year Balance	$1,704,422	$1,964,501	$230,000	$248,859	$230,000	$230,000	$332,957	$435,914	$495,926	$535,065
Cumulative Expenditures	($5,183,120)	($5,208,260)	($7,227,980)	($7,369,534)	($7,548,807)	($7,683,760)	($7,693,760)	($7,703,760)	($7,756,705)	($7,830,524)
Cumulative Receipts	$6,887,542	$7,172,761	$7,457,980	$7,618,393	$7,778,807	$7,913,760	$8,026,717	$8,139,674	$8,252,632	$8,365,589
Year	**2052**	**2053**	**2054**	**2055**	**2056**	**2057**	**2058**	**4th Peak - 2059**	**2060**	**5th Peak - 2061**
Projected Replacements	($169,555)	($39,275)	($33,913)	($10,000)	($201,832)	($380,498)	($214,813)	($158,838)	($39,253)	($47,044)
Annual Deposit	$112,957	$112,957	$112,957	$112,957	$112,957	$112,957	$112,957	$112,957	$43,149	$43,149
End of Year Balance	$478,467	$552,149	$631,193	$734,151	$645,276	$377,736	$275,880	$230,000	$233,895	$230,000
Cumulative Expenditures	($8,000,079)	($8,039,354)	($8,073,267)	($8,083,267)	($8,285,098)	($8,665,596)	($8,880,409)	($9,039,246)	($9,078,499)	($9,125,543)
Cumulative Receipts	$8,478,546	$8,591,503	$8,704,460	$8,817,417	$8,930,375	$9,043,332	$9,156,289	$9,269,246	$9,312,395	$9,355,543

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.

$285,219 **2022 - CASH FLOW METHOD RECOMMENDED FUNDING**

The 2022 Study Year calculations have been made using current replacement costs (see Page B.2), modified by the Analyst for any project specific conditions.

$291,779 **2023 - INFLATION ADJUSTED FUNDING**

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

- Replacement Reserves on Deposit totaling $942,799 on January 1, 2023.
- All 2022 Projected Replacements listed on Page C.2 accomplished at a cost to Replacement Reserves less than $240,365.
- Construction Cost Inflation of 4.00 percent in 2022.

The $291,779 inflation adjusted funding in 2023 is a 2.30 percent increase over the non-inflation adjusted funding of $285,219.

$298,490 **2024 - INFLATION ADJUSTED FUNDING**

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

- Replacement Reserves on Deposit totaling $1,009,685 on January 1, 2024.
- All 2023 Projected Replacements listed on Page C.2 accomplished at a cost to Replacement Reserves less than $176,468.
- Construction Cost Inflation of 4.00 percent in 2023.

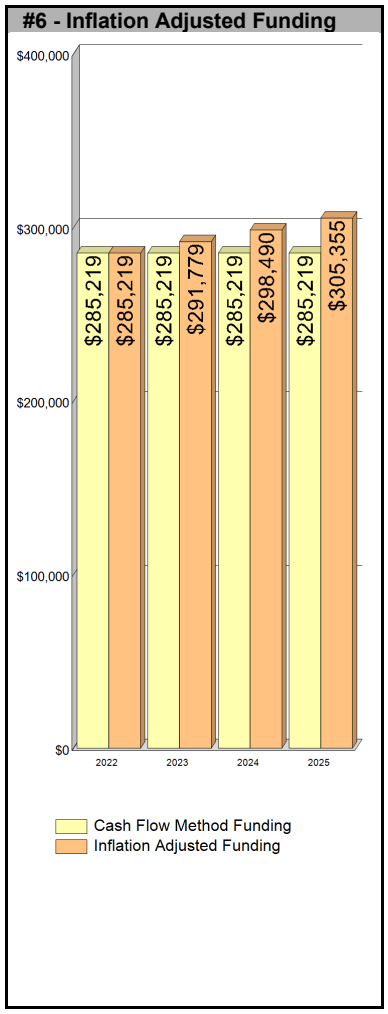
The $298,490 inflation adjusted funding in 2024 is a 4.65 percent increase over the non-inflation adjusted funding of $285,219.

$305,355 **2025 - INFLATION ADJUSTED FUNDING**

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

- Replacement Reserves on Deposit totaling $986,029 on January 1, 2025.
- All 2024 Projected Replacements listed on Page C.2 accomplished at a cost to Replacement Reserves less than $212,926.
- Construction Cost Inflation of 4.00 percent in 2024.

The $305,355 inflation adjusted funding in 2025 is a 7.05 percent increase over the non-inflation adjusted funding of $285,219.



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 2023, 2024 and 2025 inflation-adjusted funding calculations above, the 4.00 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 2022, based on a 1.00 percent interest rate, we estimate the Association may earn $9,204 on an average balance of $920,372, $9,762 on an average balance of $976,242 in 2023, and $9,979 on $997,857 in 2024. The Association may elect to attribute 100 percent of the earned interest to Reserves, resulting in a reduction in the 2022 funding from $285,219 to $276,015 (a 3.22 percent reduction), $291,779 to $282,017 in 2023 (a 3.34 percent reduction), and $298,490 to $288,511 in 2024 (a 3.34 percent reduction).

SECTION B - REPLACEMENT RESERVE INVENTORY

- **PROJECTED REPLACEMENTS.** Wynbrooke - Replacement Reserve Inventory identifies 66 items which 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 $7,146,176. Cumulative Replacements totaling $9,125,543 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.

- **EXCLUDED ITEMS.** Some of the items included in the Replacement Reserve Inventory are 'Excluded Items'. Multiple categories of items are typically excluded from funding by Replacement Reserves, including but not limited to:

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

  Value. Items with a replacement cost of less than $1000 and/or a normal economic life of less than 3 years are typically excluded from funding from Replacement Reserves. This exclusion should reflect the Association policy on the administration of Replacement Reserves. If the Association has selected an alternative level, it will be noted in the Replacement Reserve Inventory - General Comments on Page B.2.

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

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

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

- **CATEGORIES.** The 66 items included in the Wynbrooke Replacement Reserve Inventory are divided into 3 major categories. Each category is printed on a separate page, beginning on page B.3.

- **LEVEL OF SERVICE.** This Replacement Reserve Inventory has been developed in compliance with the standards established for a Level 2 Update, as defined by the National Reserve Study Standards, established in 1998 by Community Associations Institute, which states:

  This study has been performed as a Level 2 Update with Site Visit/On-Site Review as defined by the Community Associations Institute's, National Reserve Study Standards. As such, the component inventory is based on the study that was performed by Miller+Dodson in 2015. 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 66 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 66 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.

SITE ITEMS
PROJECTED REPLACEMENTS

NEL- Normal Economic Life (yrs)
REL- Remaining Economic Life (yrs)

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
1	Asphalt pavement, mill & overlay (25%)	sf	66,150	$2.25	20	14	$148,838
2	Asphalt pavement, mill & overlay (25%)	sf	66,150	$2.25	20	15	$148,838
3	Asphalt pavement, mill & overlay (25%)	sf	66,150	$2.25	20	16	$148,838
4	Asphalt pavement, mill & overlay (25%)	sf	66,150	$2.25	20	17	$148,838
5	Asphalt pavement, seal coat/crack sealing	sf	264,600	$0.14	5	4	$37,044
6	Asphalt pavement repairs (allowance)	ls	1	$6,000.00	99	none	$6,000
7	Concrete curb & gutter, barrier (3%)	ft	153	$38.20	6	none	$5,845
8	Concrete curb & gutter, mountable (3%)	ft	450	$38.20	6	none	$17,190
9	Concrete driveway (3%)	sf	848	$10.85	6	6	$9,201
10	Concrete flatwork (3%)	sf	2,188	$10.85	6	6	$23,740
11	Pedestal mailbox	ea	18	$1,980.00	35	25	$35,640
12	Double mailbox post	ea	58	$500.00	30	23	$29,000
13	Loan payment	ls	1	$170,000.00	99	none	$170,000
14	Loan payment	ls	1	$170,000.00	99	1	$170,000
15	Loan payment	ls	1	$170,000.00	99	2	$170,000
16	Loan payment	ls	1	$170,000.00	99	3	$170,000
17	Loan payment	ls	1	$170,000.00	99	4	$170,000
18	Loan payment	ls	1	$170,000.00	99	5	$170,000

Replacement Costs - Page Subtotal $1,779,009

COMMENTS

- We have assumed that the Association will replace the asphalt pavement by the installation of a 2-inch-thick overlay. The pavement will need to be milled prior to the installation of the overlay. Milling and the cost of minor repairs (5 to 10 percent of the total area) to the base materials and bearing soils beneath the pavement are included in the cost shown above.
- Seal coating or rejuvenation has been shown to extend service life of asphalt if performed at an early stage, once asphalt has fully cured and then cyclically thereafter. This is the best practice to extend life of the asphalt pavement. The Unit Cost includes crack sealing, and line/curb painting. The Asphalt paving industries recommendation/best practice is to sealcoat approximately one (1) year after the mill and overlay is performed. One (1) year allows the excess oils in the paving mixture to “weather off”. Sealing the following year locks in the remaining essential oils that keep the pavement pliable. Cyclical reapplication of the sealcoat, approximately every five (5) years, will keep those oils in expanding its useful life. Unit cost for seal coating is an actual cost paid by the Association.
- Concrete has a normal economic life expectancy of 60 years. We are modeling 3% of the total requiring replacement each six years. Items showing zero remaining life expectancy is to take care of immediate needs due to tripping hazards.
- For concrete components and other roadway shoulder work, we have assumed that the Association will conduct concrete component replacement projects in conjunction with asphalt pavement, other concrete, or rights-of-way replacement projects.
- Listings for the Loan Repayment have been added at the request of the Association. We recommend that you consult with your accountant when making loan repayments through the Reserve Fund.

SITE ITEMS
PROJECTED REPLACEMENTS

NEL- Normal Economic Life (yrs)
REL- Remaining Economic Life (yrs)

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
19	Wood pedestrian bridge, PTL structure	sf	525	$56.20	30	16	$29,505
20	Wood PTL decking	sf	525	$13.40	15	8	$7,035
21	Wood PTL railing	ft	210	$28.80	15	8	$6,048
22	Fence, wood, 3-rail & post	ft	80	$23.50	30	15	$1,880
23	Fence, 4' vinyl picket (pool)	ft	400	$31.60	40	21	$12,640
24	Entrance monument, composite sign	sf	128	$20.00	25	25	$2,560
25	Entrance monument, EIFS recoat sign	sf	500	$9.15	15	15	$4,575
26	Pergola, PVC	sf	190	$46.00	40	23	$8,740
27	Support columns, 8" composite	ea	4	$350.00	40	23	$1,400
28	Stormwater management	ls	1	$3,750.00	10	2	$3,750
29	Stormwater pond dredging (allowance)	ls	1	$200,000.00	20	15	$200,000
30	Pond fountain	ea	11	$3,600.00	10	10	$39,600
31	Irrigation system	ls	1	$10,000.00	1	none	$10,000

Replacement Costs - Page Subtotal $327,733

COMMENTS

EXTERIOR ITEMS
PROJECTED REPLACEMENTS

NEL- Normal Economic Life (yrs)
REL- Remaining Economic Life (yrs)

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
32	Roofing, asphalt shingles	sf	391,688	$4.86	25	22	$1,903,604
33	Siding & trim, vinyl (25%) phase 1	sf	68,630	$7.80	35	14	$535,314
34	Soffit & trim, vinyl (25%) phase 1	sf	9,414	$8.10	40	22	$76,253
35	Metal porch column (25%) phase 1	ea	165	$300.00	35	14	$49,500
36	Building lighting (25%) phase 1	ea	153	$175.00	25	3	$26,775
37	Siding & trim, vinyl (25%) phase 2	sf	68,630	$7.80	35	15	$535,314
38	Soffit & trim, vinyl (25%) phase 2	sf	9,414	$8.10	40	23	$76,253
39	Metal porch column (25%) phase 2	ea	165	$300.00	35	14	$49,500
40	Building lighting (25%) phase 2	ea	153	$175.00	25	4	$26,775
41	Siding & trim, vinyl (25%) phase 3	sf	68,630	$7.80	35	16	$535,314
42	Soffit & trim, vinyl (25%) phase 3	sf	9,414	$8.10	40	24	$76,253
43	Metal porch column (25%) phase 3	ea	165	$300.00	35	14	$49,500
44	Building lighting (25%) phase 3	ea	153	$175.00	25	5	$26,775
45	Siding & trim, vinyl (25%) phase 4	sf	68,630	$7.80	35	17	$535,314
46	Soffit & trim, vinyl (25%) phase 4	sf	9,414	$8.10	40	25	$76,253
47	Metal porch column (25%) phase 4	ea	165	$300.00	35	14	$49,500
48	Building lighting (25%) phase 4	ea	153	$175.00	25	6	$26,775

Replacement Costs - Page Subtotal $4,654,973

COMMENTS

EXTERIOR ITEMS - POOL HOUSE (PH)

PROJECTED REPLACEMENTS

NEL- Normal Economic Life (yrs)
REL- Remaining Economic Life (yrs)

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
49	PH Roofing, asphalt shingles	sf	1,100	$4.60	30	12	$5,060
50	PH Siding & trim, vinyl	sf	2,250	$7.80	40	15	$17,550
51	PH Soffit & trim, vinyl	sf	380	$8.10	50	23	$3,078
52	PH Exterior, siding replace	ls	1	$5,000.00	99	none	$5,000
53	PH Interior refurbishment	ls	1	$2,500.00	10	1	$2,500
54	PH Door, fiberglass, flush (3' x 6'8")	ea	5	$1,560.00	35	35	$7,800
55	PH Security system, cameras	ls	1	$6,300.00	5	5	$6,300
56	PH Gate entry system	ls	1	$10,000.00	10	none	$10,000

Replacement Costs - Page Subtotal $57,288

COMMENTS

RECREATION ITEMS
PROJECTED REPLACEMENTS

NEL- Normal Economic Life (yrs)
REL- Remaining Economic Life (yrs)

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
57	Swimming pool structure	sf	2,900	$90.00	60	41	$261,000
58	Swimming pool, whitecoat	sf	2,900	$6.10	10	2	$17,690
59	Swimming pool waterline tile (6 x 6)	ft	230	$10.75	10	2	$2,473
60	Pool deck, concrete (20%)	sf	1,420	$11.50	10	none	$16,330
61	Pool pump,3 HP	ea	2	$2,100.00	10	5	$4,200
62	Pool filter, sand	ea	2	$1,680.00	15	5	$3,360
63	Pool furniture, lounge, vinyl strap	ea	18	$175.00	10	8	$3,150
64	Pool furniture, chair, vinyl strap	ea	77	$120.00	10	8	$9,240
65	Pool furniture, round table (42")	ea	21	$180.00	10	8	$3,780
66	Pool furniture, umbrella (7') with stand	ea	17	$350.00	12	10	$5,950

Replacement Costs - Page Subtotal $327,173

COMMENTS

VALUATION EXCLUSIONS

Excluded Items

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
	Site lighting fixtures						EXCLUDED
	Miscellaneous signage						EXCLUDED

VALUATION EXCLUSIONS

Comments

- Valuation Exclusions. For ease of administration of the Replacement Reserves and to reflect accurately how Replacement Reserves are administered, items with a dollar value less than $1000 have not been scheduled for funding from Replacement Reserve. Examples of items excluded by Replacement Reserves by this standard are listed above.
- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

LONG-LIFE EXCLUSIONS
Excluded Items

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
	Masonry features						EXCLUDED
	Exterior brick veneer						EXCLUDED
	Building foundation(s)						EXCLUDED
	Concrete floor slabs (interior)						EXCLUDED
	Wall, floor, and roof structure						EXCLUDED
	Common element electrical services						EXCLUDED
	Electrical wiring						EXCLUDED
	Water piping at common facilities						EXCLUDED
	Waste piping at common facilities						EXCLUDED
	Gas services at common facilities						EXCLUDED

LONG-LIFE EXCLUSIONS
Comments

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

UNIT IMPROVEMENTS EXCLUSIONS

Excluded Items

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
	Domestic water pipes serving one unit						EXCLUDED
	Sanitary sewers serving one unit						EXCLUDED
	Electrical wiring serving one unit						EXCLUDED
	Cable TV service serving one unit						EXCLUDED
	Telephone service serving one unit						EXCLUDED
	Gas service serving one unit						EXCLUDED
	Unit gutters and downspouts						EXCLUDED
	Unit windows						EXCLUDED
	Unit doors						EXCLUDED
	Unit skylights						EXCLUDED
	Unit deck, patio, and/or balcony						EXCLUDED
	Unit interior						EXCLUDED
	Unit HVAC system						EXCLUDED

UNIT IMPROVEMENTS EXCLUSIONS

Comments

- Unit improvement Exclusions. We understand that the elements of the project that relate to a single unit are the responsibility of that unit owner. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.
- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

UTILITY EXCLUSIONS
Excluded Items

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
	Primary electric feeds						EXCLUDED
	Electric transformers						EXCLUDED
	Cable TV systems and structures						EXCLUDED
	Telephone cables and structures						EXCLUDED
	Site lighting						EXCLUDED
	Gas mains and meters						EXCLUDED
	Water mains and meters						EXCLUDED
	Sanitary sewers						EXCLUDED

UTILITY EXCLUSIONS
Comments

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

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

MAINTENANCE AND REPAIR EXCLUSIONS

Excluded Items

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
	Cleaning of asphalt pavement						EXCLUDED
	Striping of parking spaces						EXCLUDED
	Numbering of parking spaces						EXCLUDED
	Landscaping and site grading						EXCLUDED
	Exterior painting						EXCLUDED
	Interior painting						EXCLUDED
	Janitorial service						EXCLUDED
	Repair services						EXCLUDED
	Partial replacements						EXCLUDED
	Capital improvements						EXCLUDED

MAINTENANCE AND REPAIR EXCLUSIONS

Comments

- Maintenance activities, one-time-only repairs, and capital improvements. These activities are NOT appropriately funded from Replacement Reserves. The inclusion of such component in the Replacement Reserve Inventory could jeopardize the special tax status of ALL Replacement Reserves, exposing the Association to significant tax liabilities. We recommend that the Board of Directors discuss these exclusions and Revenue Ruling 75-370 with a Certified Public Accountant.

- Examples of items excluded from funding by Replacement Reserves are listed above. The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

GOVERNMENT EXCLUSIONS

Excluded Items

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
	Government, roadways and parking						EXCLUDED
	Government, sidewalks and curbs						EXCLUDED

GOVERNMENT EXCLUSIONS

Comments

- Government Exclusions. We have assumed that some of the improvements installed on property owned by the Association will be maintained by the state, county, or local government, or other association or other responsible entity. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.
- Excluded 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.

SECTION C - CALENDAR OF PROJECTED ANNUAL REPLACEMENTS

GENERAL STATEMENT. The 66 Projected Replacements in the Wynbrooke Replacement Reserve Inventory whose replacements are scheduled to be funded from Replacement Reserves are shown 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. We acknowledge that there are instances in which multiple revisions are necessary. However, unnecessary multiple revisions are a drain on our time and manpower resources. Therefore, Miller Dodson 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 replacements activities must be held in separate accounts. If a CID files taxes as an "Exempt Homeowners Association" using Form 1120H (IRC Section 528), the CID does not have to segregate these activities. However, because the CID may elect to change their method of filing from year to year within the Study Period, we advise using the more restrictive approach. We further recommend that the CID consult with their Accountant and consider creating separate and independent accounts and reserves for large maintenance items, such as painting.

- **CONFLICT OF INTEREST.** Neither Miller - Dodson Associates nor the Reserve Analyst has any prior or existing relationship with this Association which would represent a real or perceived conflict of interest.

- **RELIANCE ON DATA PROVIDED BY THE CLIENT.** Information provided by an official representative of the Association regarding financial, physical conditions, quality, or historical issues is deemed reliable.

- **INTENT.** This Replacement Reserve Study is a reflection of the information provided by the Association and the visual evaluations of the Analyst. It has been prepared for the sole use of the Association and is not for the purpose of performing an audit, quality/forensic analyses, or background checks of historical records.

- **PREVIOUS REPLACEMENTS.** Information provided to Miller - Dodson Associates regarding prior replacements is considered to be accurate and reliable. Our visual evaluation is not a project audit or structural inspection.

- **EXPERIENCE WITH FUTURE REPLACEMENTS.** The Calendar of Annual Projected Replacements, lists replacements we have projected to occur over the Study Period, begins on Page C2. Actual experience in replacing the items may differ significantly from the cost estimates and time frames shown because of conditions beyond our control. These differences may be caused by maintenance practices, inflation, variations in pricing and market conditions, future technological developments, regulatory actions, acts of God, and luck. Some items may function normally during our visual evaluation and then fail without notice.

PROJECTED REPLACEMENTS

Item	2022 - Study Year	$
6	Asphalt pavement repairs (allowance)	$6,000
7	Concrete curb & gutter, barrier (3%)	$5,845
8	Concrete curb & gutter, mountable (3%)	$17,190
13	Loan payment	$170,000
31	Irrigation system	$10,000
52	PH Exterior, siding replace	$5,000
56	PH Gate entry system	$10,000
60	Pool deck, concrete (20%)	$16,330
	Total Scheduled Replacements	$240,365

Item	2023 - YEAR 1	$
14	Loan payment	$170,000
31	Irrigation system	$10,000
53	PH Interior refurbishment	$2,500
	Total Scheduled Replacements	$182,500

Item	2024 - YEAR 2	$
15	Loan payment	$170,000
28	Stormwater management	$3,750
31	Irrigation system	$10,000
58	Swimming pool, whitecoat	$17,690
59	Swimming pool waterline tile (6 x 6)	$2,473
	Total Scheduled Replacements	$203,913

Item	2025 - YEAR 3	$
16	Loan payment	$170,000
31	Irrigation system	$10,000
36	Building lighting (25%) phase 1	$26,775
	Total Scheduled Replacements	$206,775

Item	2026 - YEAR 4	$
5	Asphalt pavement, seal coat/crack sealing	$37,044
17	Loan payment	$170,000
31	Irrigation system	$10,000
40	Building lighting (25%) phase 2	$26,775
	Total Scheduled Replacements	$243,819

Item	2027 - YEAR 5	$
18	Loan payment	$170,000
31	Irrigation system	$10,000
44	Building lighting (25%) phase 3	$26,775
55	PH Security system, cameras	$6,300
61	Pool pump,3 HP	$4,200
62	Pool filter, sand	$3,360
	Total Scheduled Replacements	$220,635

Item	2028 - YEAR 6	$
7	Concrete curb & gutter, barrier (3%)	$5,845
8	Concrete curb & gutter, mountable (3%)	$17,190
9	Concrete driveway (3%)	$9,201
10	Concrete flatwork (3%)	$23,740
31	Irrigation system	$10,000
48	Building lighting (25%) phase 4	$26,775
	Total Scheduled Replacements	$92,750

Item	2029 - YEAR 7	$
31	Irrigation system	$10,000
	Total Scheduled Replacements	$10,000

PROJECTED REPLACEMENTS

Item	2030 - YEAR 8	$
20	Wood PTL decking	$7,035
21	Wood PTL railing	$6,048
31	Irrigation system	$10,000
63	Pool furniture, lounge, vinyl strap	$3,150
64	Pool furniture, chair, vinyl strap	$9,240
65	Pool furniture, round table (42")	$3,780
Total Scheduled Replacements		$39,253

Item	2031 - YEAR 9	$
5	Asphalt pavement, seal coat/crack sealing	$37,044
31	Irrigation system	$10,000
Total Scheduled Replacements		$47,044

Item	2032 - YEAR 10	$
30	Pond fountain	$39,600
31	Irrigation system	$10,000
55	PH Security system, cameras	$6,300
56	PH Gate entry system	$10,000
60	Pool deck, concrete (20%)	$16,330
66	Pool furniture, umbrella (7') with stand	$5,950
Total Scheduled Replacements		$88,180

Item	2033 - YEAR 11	$
31	Irrigation system	$10,000
53	PH Interior refurbishment	$2,500
Total Scheduled Replacements		$12,500

Item	2034 - YEAR 12	$
7	Concrete curb & gutter, barrier (3%)	$5,845
8	Concrete curb & gutter, mountable (3%)	$17,190
9	Concrete driveway (3%)	$9,201
10	Concrete flatwork (3%)	$23,740
28	Stormwater management	$3,750
31	Irrigation system	$10,000
49	PH Roofing, asphalt shingles	$5,060
58	Swimming pool, whitecoat	$17,690
59	Swimming pool waterline tile (6 x 6)	$2,473
Total Scheduled Replacements		$94,948

Item	2035 - YEAR 13	$
31	Irrigation system	$10,000
Total Scheduled Replacements		$10,000

Item	2036 - YEAR 14	$
1	Asphalt pavement, mill & overlay (25%)	$148,838
5	Asphalt pavement, seal coat/crack sealing	$37,044
31	Irrigation system	$10,000
33	Siding & trim, vinyl (25%) phase 1	$535,314
35	Metal porch column (25%) phase 1	$49,500
39	Metal porch column (25%) phase 2	$49,500
43	Metal porch column (25%) phase 3	$49,500
47	Metal porch column (25%) phase 4	$49,500
Total Scheduled Replacements		$929,196

Item	2037 - YEAR 15	$
2	Asphalt pavement, mill & overlay (25%)	$148,838
22	Fence, wood, 3-rail & post	$1,880
25	Entrance monument, EIFS recoat sign	$4,575
29	Stormwater pond dredging (allowance)	$200,000
31	Irrigation system	$10,000
37	Siding & trim, vinyl (25%) phase 2	$535,314
50	PH Siding & trim, vinyl	$17,550
55	PH Security system, cameras	$6,300
61	Pool pump,3 HP	$4,200
Total Scheduled Replacements		$928,657

PROJECTED REPLACEMENTS

Item	2038 - YEAR 16	$
3	Asphalt pavement, mill & overlay (25%)	$148,838
19	Wood pedestrian bridge, PTL structure	$29,505
31	Irrigation system	$10,000
41	Siding & trim, vinyl (25%) phase 3	$535,314
	Total Scheduled Replacements	$723,657

Item	2039 - YEAR 17	$
4	Asphalt pavement, mill & overlay (25%)	$148,838
31	Irrigation system	$10,000
45	Siding & trim, vinyl (25%) phase 4	$535,314
	Total Scheduled Replacements	$694,152

Item	2040 - YEAR 18	$
7	Concrete curb & gutter, barrier (3%)	$5,845
8	Concrete curb & gutter, mountable (3%)	$17,190
9	Concrete driveway (3%)	$9,201
10	Concrete flatwork (3%)	$23,740
31	Irrigation system	$10,000
63	Pool furniture, lounge, vinyl strap	$3,150
64	Pool furniture, chair, vinyl strap	$9,240
65	Pool furniture, round table (42")	$3,780
	Total Scheduled Replacements	$82,145

Item	2041 - YEAR 19	$
5	Asphalt pavement, seal coat/crack sealing	$37,044
31	Irrigation system	$10,000
	Total Scheduled Replacements	$47,044

Item	2042 - YEAR 20	$
30	Pond fountain	$39,600
31	Irrigation system	$10,000
55	PH Security system, cameras	$6,300
56	PH Gate entry system	$10,000
60	Pool deck, concrete (20%)	$16,330
62	Pool filter, sand	$3,360
	Total Scheduled Replacements	$85,590

Item	2043 - YEAR 21	$
23	Fence, 4' vinyl picket (pool)	$12,640
31	Irrigation system	$10,000
53	PH Interior refurbishment	$2,500
	Total Scheduled Replacements	$25,140

Item	2044 - YEAR 22	$
28	Stormwater management	$3,750
31	Irrigation system	$10,000
32	Roofing, asphalt shingles	$1,903,604
34	Soffit & trim, vinyl (25%) phase 1	$76,253
58	Swimming pool, whitecoat	$17,690
59	Swimming pool waterline tile (6 x 6)	$2,473
66	Pool furniture, umbrella (7') with stand	$5,950
	Total Scheduled Replacements	$2,019,720

Item	2045 - YEAR 23	$
12	Double mailbox post	$29,000
20	Wood PTL decking	$7,035
21	Wood PTL railing	$6,048
26	Pergola, PVC	$8,740
27	Support columns, 8" composite	$1,400
31	Irrigation system	$10,000
38	Soffit & trim, vinyl (25%) phase 2	$76,253
51	PH Soffit & trim, vinyl	$3,078
	Total Scheduled Replacements	$141,554

PROJECTED REPLACEMENTS

Item	2046 - YEAR 24	$
5	Asphalt pavement, seal coat/crack sealing	$37,044
7	Concrete curb & gutter, barrier (3%)	$5,845
8	Concrete curb & gutter, mountable (3%)	$17,190
9	Concrete driveway (3%)	$9,201
10	Concrete flatwork (3%)	$23,740
31	Irrigation system	$10,000
42	Soffit & trim, vinyl (25%) phase 3	$76,253
	Total Scheduled Replacements	$179,273

Item	2047 - YEAR 25	$
11	Pedestal mailbox	$35,640
24	Entrance monument, composite sign	$2,560
31	Irrigation system	$10,000
46	Soffit & trim, vinyl (25%) phase 4	$76,253
55	PH Security system, cameras	$6,300
61	Pool pump,3 HP	$4,200
	Total Scheduled Replacements	$134,953

Item	2048 - YEAR 26	$
31	Irrigation system	$10,000
	Total Scheduled Replacements	$10,000

Item	2049 - YEAR 27	$
31	Irrigation system	$10,000
	Total Scheduled Replacements	$10,000

Item	2050 - YEAR 28	$
31	Irrigation system	$10,000
36	Building lighting (25%) phase 1	$26,775
63	Pool furniture, lounge, vinyl strap	$3,150
64	Pool furniture, chair, vinyl strap	$9,240
65	Pool furniture, round table (42")	$3,780
	Total Scheduled Replacements	$52,945

Item	2051 - YEAR 29	$
5	Asphalt pavement, seal coat/crack sealing	$37,044
31	Irrigation system	$10,000
40	Building lighting (25%) phase 2	$26,775
	Total Scheduled Replacements	$73,819

Item	2052 - YEAR 30	$
7	Concrete curb & gutter, barrier (3%)	$5,845
8	Concrete curb & gutter, mountable (3%)	$17,190
9	Concrete driveway (3%)	$9,201
10	Concrete flatwork (3%)	$23,740
25	Entrance monument, EIFS recoat sign	$4,575
30	Pond fountain	$39,600
31	Irrigation system	$10,000
44	Building lighting (25%) phase 3	$26,775
55	PH Security system, cameras	$6,300
56	PH Gate entry system	$10,000
60	Pool deck, concrete (20%)	$16,330
	Total Scheduled Replacements	$169,555

Item	2053 - YEAR 31	$
31	Irrigation system	$10,000
48	Building lighting (25%) phase 4	$26,775
53	PH Interior refurbishment	$2,500
	Total Scheduled Replacements	$39,275

PROJECTED REPLACEMENTS

Item	2054 - YEAR 32	$
28	Stormwater management	$3,750
31	Irrigation system	$10,000
58	Swimming pool, whitecoat	$17,690
59	Swimming pool waterline tile (6 x 6)	$2,473
	Total Scheduled Replacements	$33,913

Item	2055 - YEAR 33	$
31	Irrigation system	$10,000
	Total Scheduled Replacements	$10,000

Item	2056 - YEAR 34	$
1	Asphalt pavement, mill & overlay (25%)	$148,838
5	Asphalt pavement, seal coat/crack sealing	$37,044
31	Irrigation system	$10,000
66	Pool furniture, umbrella (7') with stand	$5,950
	Total Scheduled Replacements	$201,832

Item	2057 - YEAR 35	$
2	Asphalt pavement, mill & overlay (25%)	$148,838
29	Stormwater pond dredging (allowance)	$200,000
31	Irrigation system	$10,000
54	PH Door, fiberglass, flush (3' x 6'8")	$7,800
55	PH Security system, cameras	$6,300
61	Pool pump,3 HP	$4,200
62	Pool filter, sand	$3,360
	Total Scheduled Replacements	$380,498

Item	2058 - YEAR 36	$
3	Asphalt pavement, mill & overlay (25%)	$148,838
7	Concrete curb & gutter, barrier (3%)	$5,845
8	Concrete curb & gutter, mountable (3%)	$17,190
9	Concrete driveway (3%)	$9,201
10	Concrete flatwork (3%)	$23,740
31	Irrigation system	$10,000
	Total Scheduled Replacements	$214,813

Item	2059 - YEAR 37	$
4	Asphalt pavement, mill & overlay (25%)	$148,838
31	Irrigation system	$10,000
	Total Scheduled Replacements	$158,838

Item	2060 - YEAR 38	$
20	Wood PTL decking	$7,035
21	Wood PTL railing	$6,048
31	Irrigation system	$10,000
63	Pool furniture, lounge, vinyl strap	$3,150
64	Pool furniture, chair, vinyl strap	$9,240
65	Pool furniture, round table (42")	$3,780
	Total Scheduled Replacements	$39,253

Item	2061 - YEAR 39	$
5	Asphalt pavement, seal coat/crack sealing	$37,044
31	Irrigation system	$10,000
	Total Scheduled Replacements	$47,044

SECTION D - CONDITION ASSESSMENT

General Comments. Miller+Dodson Associates conducted a Reserve Study at Wynbrooke in November 2021. Wynbrooke is in generally Good overall condition for a homeowner's association constructed in 2003. A review of the Replacement Reserve Inventory will show that we are anticipating most of the components achieving their normal economic lives.

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

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.

General Condition Statements.

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

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

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

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

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

SITE ITEMS

Asphalt Pavement. The Association is responsible for the roadways and parking areas within the community. Other roadways are maintained by the City, County, or other municipality. In general, the Association's asphalt pavements are in Good overall condition having just been seal coated in 2020.





No noticeable defects in the asphalt were observed during our site visit; however, the following defects can occur over time and should be corrected:

- **Open Cracks.** Open cracks will water to penetrate to the asphalt base and the bearing soils beneath. Over time, water will erode the base and accelerate the deterioration of the asphalt pavement. If cracks extend to the base and bearing materials, remove the damaged areas, and replace defective materials. As a part of normal maintenance, clean and fill all other cracks.
- **Alligatoring.** Asphalt can develop a pattern of cracking 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 to 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.
- **Improper Grading.** Improper grading will result in the ponding of water. Proper grading of the asphalt pavement will require replacing portions of the asphalt. It may also require resetting improperly sloped curb and gutter segments that are not conveying water to the stormwater management system. If ponding is left unattended it can result in unsafe travel areas, by creating conditions for hydroplaning and pockets of ice to form.
- **Potholes.** Potholes will form as the result of full-depth pavement failure, including base materials. The repair will require removal of the asphalt and base materials, installation and compaction of new base materials, and asphalt resurfacing.
- **Depressions.** Deformation in the surface or underlying layers of asphalt will form depressions. These depressions may continue to grow with exposure to traffic. Water ponding is evident in several of these areas. Repair of these areas will require the removal of the asphalt and base material and reinstallation, by compacting the new base material and resurfacing with asphalt.
- **Wheel Rutting.** Depressions along the wheel lines can result in wheel rutting. Repair of these areas will require full-depth and full-width pavement replacement. Wheel rutting, if left unattended can adversely affect vehicle steering.
- **Shoving.** At locations of sharp braking or turning, shoving can occur. The primary cause of this defect is from large truck traffic. If addressed early, surface milling and overlay using a stiffer topcoat of asphalt pavement shoving can be mitigated.
- **Tree Root Damage.** This occurs in areas adjacent to large trees. The tree roots can cause heaving in the pavement surface. The repair of these areas requires the removal of the asphalt and the tree roots, then replenish and re-compact the base material and resurface the asphalt. Root trimming can also be an effective way to control this defect.
- **Edge Cracking.** Edge cracking occurs 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.
- **Reflective Cracking.** Reflective cracks occur when placing a new asphalt overlay over an existing cracked pavement. With time and movement, existing cracks will migrate through the new asphalt. Installing a bridging membrane or fabric at the time of overlay can control reflective cracking.

A more detailed summary of pavement distress can be found at http://www.asphaltinstitute.org/engineering/maintenance-and-rehabilitation/pavement-distress-summary/.

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

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

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

The pricing used for the sealcoating work is based on the actual cost of the work in 2020. Pricing for the milling and overlaying work 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, Asphalt Restoration Technologies, Inc., and others, are penetrating. They are engineered, so to speak, to 'remoisturize' the pavement. Asphalt pavement is intended to be flexible. Over time, the volatile chemicals in the pavement dry, the pavement becomes brittle, and degradation follows in the forms of cracking and potholes. Remoisturizing the pavement can return its flexibility and extend the life of the pavement.

Concrete Work. The concrete work includes the community sidewalks, driveways, curbs, and gutter as well as other flatwork. The overall condition of the concrete work is Good.





The standards we use for recommending replacement are as follows:

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

Because it is highly unlikely that all of the concrete components will fail and require replacement in the period of the study, we have programmed funds for the replacement of these inventories and spread the funds over an extended timeframe to reflect the incremental nature of this work.

Mailboxes. Cluster mailboxes are located in sections of the community along Williston Loop, Wilshire Lane, Whinstone Drive, and Wimbledon Way. Post mounted mailboxes are located in the section of the community along Wild Rye Place, Wales Way, Warrington Way, Waltham Forest Drive, Windley Drive, and Watford Place. All mailboxes appear to be in Good overall condition.





Mailboxes should be maintained to the extent that rust does not develop on the structure or pedestal, and all mail slot doors remain intact with operable hinges and locks.

Wooden Bridge. The Association maintains a wood pedestrian bridge that connects homes along Wild Rye Place with the community pool. The bridge is made of preservative treated heavy timber piling with preservative treated wood structure, decking, and railing. The Association replaced approximately 1/3 of the decking and rails in 2021. All of the wood components appear to be in overall Fair condition.





We recommend for the Association implement an annual inspection program. We also recommend power washing and the application of a wood sealer with UV protection every two to three years.

When installing new decking, the installation of a self-healing flashing membrane is recommended along the top and ends of all wooden horizontal structural members. Synthetic decking and railing systems should also be considered.

Fencing. The Association maintains painted preservative treated wood fencing at the vehicular entrance to the community off Tournament Boulevard and vinyl fencing at the community pool. 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.



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

Vinyl fencing made of 100% virgin material can last 30 to 35 years, and periodic cleaning will keep the fence looking attractive. Vinyl components with ticker walls can provide a longer useful life.

Entry Monument and Signage. The Association maintains entry monuments at both entrances into the community - off Highway 707 and Tournament Boulevard. The two monuments are identical in shape, size, and overall finishes. They both consist of masonry pier and wall construction with an EIFS coating as the finish. Oval composite signage is placed on the wall portion of the monument. Both monuments are in Good condition.





EXTERIOR ITEMS

Building Roofing. The roofs on all buildings in the community were replaced in 2018. They consist of asphalt shingles and are in Good condition.









Asphalt shingle roofs can have a useful life of 20 to 50 years depending on the weight and quality of the shingle. Weathered, curled, and missing shingles are all indications that the shingles may be nearing the end of their useful life.

Access to the roof was not provided at the time of inspection.

Annual inspections are recommended, with cleaning, repair, and mitigation of vegetation performed as needed. Access, inspection, and repair work should be performed by contractors and personnel with the appropriate access equipment who are experienced in the types of roofing used for the facility.

Siding and Trim. The siding and trim on the buildings in the community is primarily vinyl lap siding with a brick veneer used as an accent. The vinyl siding appears to be in Good condition.



Vinyl Siding and Trim can have an extended useful life if not damaged by impact, heat, or other physical reasons. However, the coatings and finishes typically have a useful life and over time begin to weather, chalk, and show their age. For these reasons, we have modeled for the replacement of the siding and trim every 40 years.

Brick veneer is considered to have a long life and therefore is not included in this Study.

RECREATION ITEMS

Swimming Pool. The community operates an outdoor pool of concrete construction. Listed below are the major components of the pool facilities:









- Pool Shell and Deck. The shell for the swimming pool is believed to be in Good condition; however, there is a leak either near the edge of the pool at the skimmers or elsewhere. A study will be executed in the off season to determine the source of the leak. It is likely that some of the concrete pool deck will be demolished in order to repair the leak.
- Pool Deck Coating. The concrete pool deck is coated with an elastomeric coating. The coating is in Fair condition. We have assumed a service life for the coating of ten years.
- Whitecoat. The pool whitecoat is in Fair condition. We have assumed service life of eight to ten years for the pool whitecoat.
- Waterline Tile. The waterline tile is in Good condition. We have assumed that the waterline tile will be replaced or restored when the pool is whitecoated.
- Pump and Filter System. The pump and filter system is in Fair operating condition.
- Pool Fence. The swimming pool is enclosed by a vinyl fence that is in Good 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

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1. COMMON INTEREST DEVELOPMENTS - AN OVERVIEW

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

The growth of Community Associations has been explosive. In 1965, there were only 500 Community Associations in the United States. According to the 1990 U.S. Census, there were 130,000 Community Associations. The Community Associations Institute (CAI), a national trade association, estimates in 2018 that there were more than 347,000 communities with over 73.5 million residents.

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

2. REPLACEMENT RESERVE STUDY

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

Replacement Reserve Study Introduction. The introduction provides a description of the property, reviews the intent of the Replacement Reserve Study, and lists documents and site evaluations upon which the Replacement Reserve Study is based.

Section A Replacement Reserve Analysis. Many components owned by the Association have a limited life and require periodic replacement. Therefore, it is essential the Association have a financial plan that provides funding for the timely replacement of these components in order to protect the safety, appearance, and value of the community. In conformance with American Institute of Certified Public Accountant guidelines, a Replacement Reserve Analysis evaluates the current funding of Replacement Reserves as reported by the Association and recommends annual funding of Replacement Reserves by two generally accepted accounting methods, the Cash Flow Method and the Component Method. Miller+Dodson provides a replacement reserve recommendation based on the Cash Flow Method in Section A, and the Component Method in the Appendix of the report.

Section B Replacement Reserve Inventory. The Replacement Reserve Inventory lists the commonly owned components within the community that require periodic replacement using funding from Replacement Reserves.

The Replacement Reserve Inventory also provides information about components excluded from the Replacement Reserve Inventory whose replacement is not scheduled for funding from Replacement Reserves. Replacement Reserve Inventory includes estimates of the normal economic life and the remaining economic life for those components whose replacement is scheduled for funding from Replacement Reserves.

Section C Projected Annual Replacements. The Calendar of Projected Annual Replacements provides a year-by-year listing of the Projected Replacements based on the data in the Replacement Reserve Inventory.

Section D Condition Assessment. Several of the items listed in the Replacement Reserve Inventory are discussed in more detail. The Condition Assessment includes a narrative and photographs that document conditions at the property observed during our visual evaluation.

The Appendix is provided as an attachment to the Replacement Reserve Study. Additional attachments may include supplemental photographs to document conditions at the property and additional information specific to the property cited in the Conditions Assessment (i.e. Consumer Product Safety Commission, Handbook for Public Playground Safety, information on segmental retaining walls, manufacturer recommendations for asphalt shingles or siding, etc.). The Appendix also includes the Accounting Summary for the Cash Flow Method and the Component Method.

3. METHODS OF ANALYSIS

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

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

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

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

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

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

4. REPLACEMENT RESERVE STUDY DATA

Identification of Reserve Components. The Reserve Analyst has only two methods of identifying Reserve Components; (1) information provided by the Association and (2) observations made at the site. It is important that the Reserve Analyst be provided with all available information detailing the components owned by the Association. It is our policy to request such information prior to bidding on a project and to meet with the individuals responsible for maintaining the community after acceptance of our proposal. After completion of the Study, the Study should be reviewed by the Board of Directors, individuals responsible for maintaining the community, and the Association's accounting professionals. We are dependent upon the Association for correct information, documentation, and drawings.

Unit Costs. Unit costs are developed using nationally published standards and estimating guides and are adjusted by state or region. In some instances, recent data received in the course of our work is used to modify these figures. Contractor proposals or actual cost experience may be available as part of the Association records. This is useful information, which should be incorporated into your report. Please bring any such available data to our attention, preferably before the report is commenced.

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

5. DEFINITIONS

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

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

Cash Flow Analysis. See Cash Flow Method, above.

Component Analysis. See Component Method, above.

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

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

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

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

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

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

Estimated Initial Replacement. For a Cyclic Replacement Item (see above), the number of years until the replacement cycle is expected to begin. Estimated Replacement Cycle. For a Cyclic Replacement Item, the number of years over which the remainder of the component's replacement occurs.

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

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

Minimum Balance. Shown on the Summary Sheet A4, this amount is used in the Cash Flow Method only. Normally derived using the average annual expenditure over the study period, this is the minimum amount held in reserves for every year in the study period.

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

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

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

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

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

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

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

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

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

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

ea	each	**ls**	lump sum	**sy**	square yard
ft or lf	linear foot	**pr**	pair	**cy**	cubic yard
sf	square foot				

What is a Reserve Study?
Who are we?



https://youtu.be/m4BcOE6q3Aw

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



https://youtu.be/40SodajTW1g

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



https://youtu.be/pYSMZO13VjQ

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



https://youtu.be/Qx8WHB9Cgnc

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



https://youtu.be/ZfBoAEhtf3E

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



https://youtu.be/1J2h7FIU3qw

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



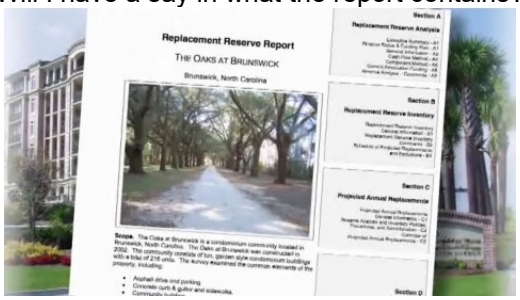
https://youtu.be/aARD1B1Oa3o

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



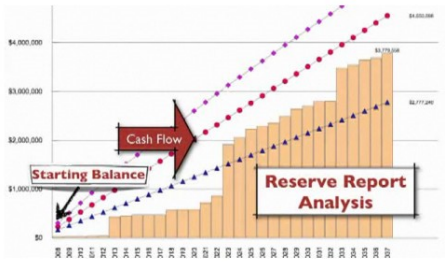
https://youtu.be/diZfM1IyJYU

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



https://youtu.be/qCeVJhFf9ag

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



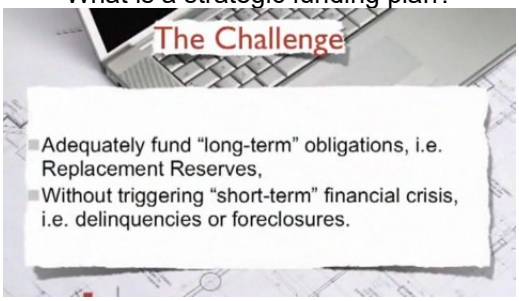
https://youtu.be/SePdwVDvHWI

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



https://youtu.be/W8CDLwRIv68

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



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