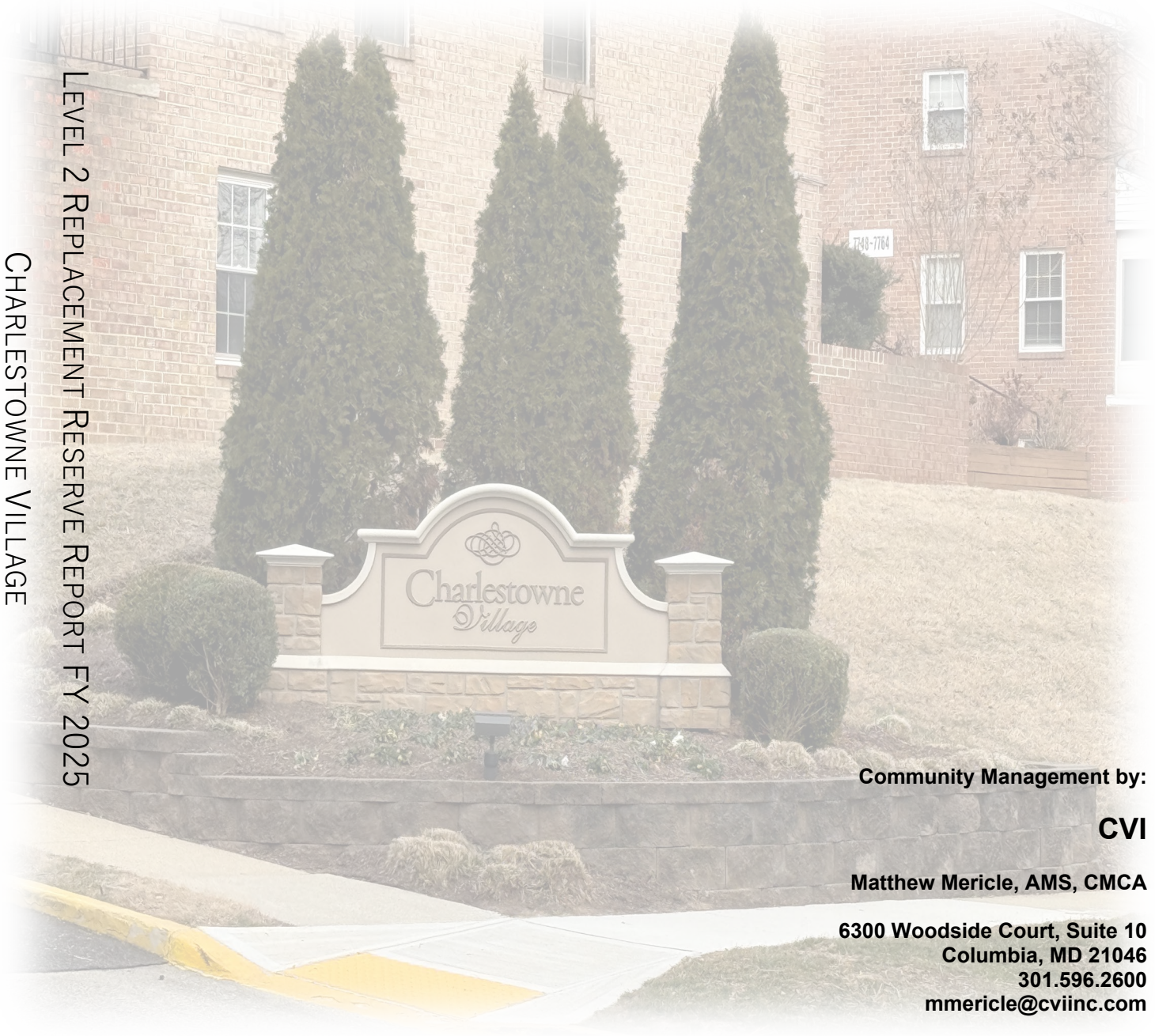
LEVEL 2 REPLACEMENT RESERVE REPORT FY 2025
CHARLESTOWNE VILLAGE



LEVEL 2 REPLACEMENT RESERVE REPORT FY 2025

CHARLESTOWNE VILLAGE

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Capital Reserve Consultants

Community Management by:

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REPLACEMENT RESERVE REPORT

CHARLESTOWNE VILLAGE

GREENBELT, MARYLAND
March 12, 2025

Description. Charlestowne Village is a Residential Condominium located in Greenbelt, Maryland. Constructed in 1964, the community consists of 15 buildings containing 165 units. The survey examined the common elements of the property, including:

- Entry Monument, Townhouse Roads, and Parking
- Sidewalks, Curbs & Gutters, and Steps
- Fencing, Railing, Site Lighting, Retaining Walls, and Trash Corrals
- Underground Waterlines and Sanitary Lines
- Storm Water Management
- Tot Lot and Picnic Area
- Building Exteriors: Balconies, Roofing, Bay Windows, and Trim
- Laundry and Storage Rooms

EXECUTIVE SUMMARY
This Reserve Study has been prepared for the Charlestowne Village for the Fiscal Year 2025 covering the period from May 1, 2025 to April 30, 2026. The Replacement Reserves Starting Balance as of May 1, 2025 is reported to be $343,493. The reported Current Annual Funding for Reserves is $132,000. The Recommended Annual Reserve Funding level for 2025 is $224,314.

The high initial Recommended Annual Reserve Funding level is the result of a significant number of replacements being scheduled in the early years of the report. This situation may be exacerbated by the low Starting Balance and the lack of adequate funding of the Reserve Fund. We recommend that the Association increase its Reserve Funding level as soon as possible. Given the high rates of inflation in today's construction industry, the longer that the Association delays in adequately funding its Reserves, the harder it will become to make up for the underfunding. Furthermore, delaying this increase will place an unfair financial burden on long-term and future owners, and may adversely affect property values. Please see Table #5 on page A.4 for a year-by-year breakdown of Recommended Funding and the reduction after Peak Years. Also, see Section C for the Calendar of Annual Projected Replacements.

The next step in the Reserve Study process is for the Board to carefully review the Component Inventory (Section B) to make sure that all included components are the responsibility of the Association, and that the priorities and the timing of the replacement are in keeping with the goals and objectives of the Community.

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

Current Funding. The Starting Balance and Current Annual Reserve Funding figures have been supplied by the managing agent and/or Board of Directors. Confirmation or audit of these figures is beyond the scope of the study. For the purposes of this study, it is assumed that the annual contribution will be deposited at the end of each month.

Level of Service. This study has been performed as a Level 2 Update with Site Visit/On-Site Review as defined by the Community Associations Institute's, National Reserve Study Standards. As such, the component inventory is based on the study that was performed by Miller+Dodson in FY 2022. This inventory was adjusted to reflect changes provided by the Community Manager and/or the Board of Directors, or adjustments made based on the site visit and visual assessment performed by the Analyst. The analysis, including fund status and funding plan, is developed from the adjusted inventory.

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

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

- **Inventory of Items Owned by the Association.** Section B lists the Projected Replacements of the commonly owned items that require periodic replacement using funding from Replacement Reserves. The Replacement Reserve Inventory also provides information about excluded items, which are items whose replacements are not scheduled for funding from Replacement Reserves.

- **Condition of Items Owned by the Association.** Section B includes our estimates of the normal economic life and the remaining economic life for the projected replacements. Section C provides a year-by-year listing of the projected replacements. Section D provides additional detail for items that are unique or deserving of attention because of their condition or the manner in which they have been treated in this study.

- **Financial Plan.** The Association has a fiduciary responsibility to protect the appearance, value, and safety of the property and it is therefore essential the Association have a financial plan that provides funding for the projected replacements. In conformance with American Institute of Certified Public Accountant guidelines, Section A, Replacement Reserve Analysis evaluates the current funding of Replacement Reserves as reported by the Association and recommends annual funding of Replacement Reserves by the Cash Flow Method. Section A, Replacement Reserve Analysis includes graphic and tabular presentations of the reported current funding and the recommended funding based on the Cash Flow Method. An Executive Summary of these calculations is provided on Page A1.

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

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

- Miller+Dodson performed a visual evaluation commencing on February 04, 2025 to determine the remaining useful life and replacement cost for the commonly owned elements of this facility.

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

To-Scale Drawings. Site and building plans were 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 Matthew Mericle, CMCA, AMS, Vice President (CVI), and Earnest Glenn, Maintenance Superintendent, who provided very helpful insight into the current operations of the property.

Analyst's Credentials. Mr. Craig Amaral holds an Associate's Degree in Architectural and Construction Technology from Montgomery College in Rockville, Maryland, with continuing courses in Bachelor of Science programs in Physical Science at the University of Maryland College Park, Maryland, and Electrical Engineering at Capitol College in Laurel, Maryland. In addition, he has completed several certificate programs in Managing Government Contracts from the Masters Institute for Government Contracting. Craig has over 25 years of experience as a construction management consultant, with 40 years of experience as an Executive Project Manager, Project Manager, Estimator, and Construction Inspector. He has served as Corporate Vice President for a mechanical prime contractor and Principle in his own construction consulting firm. Mr. Amaral is currently a reserve analyst for Miller+Dodson, serving the greater Baltimore/Washington Metropolitan area.

Respectfully Submitted,

millerdodson
CAPITAL RESERVE CONSULTANTS

Craig Amaral
Craig Amaral

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SECTION A - FINANCIAL ANALYSIS

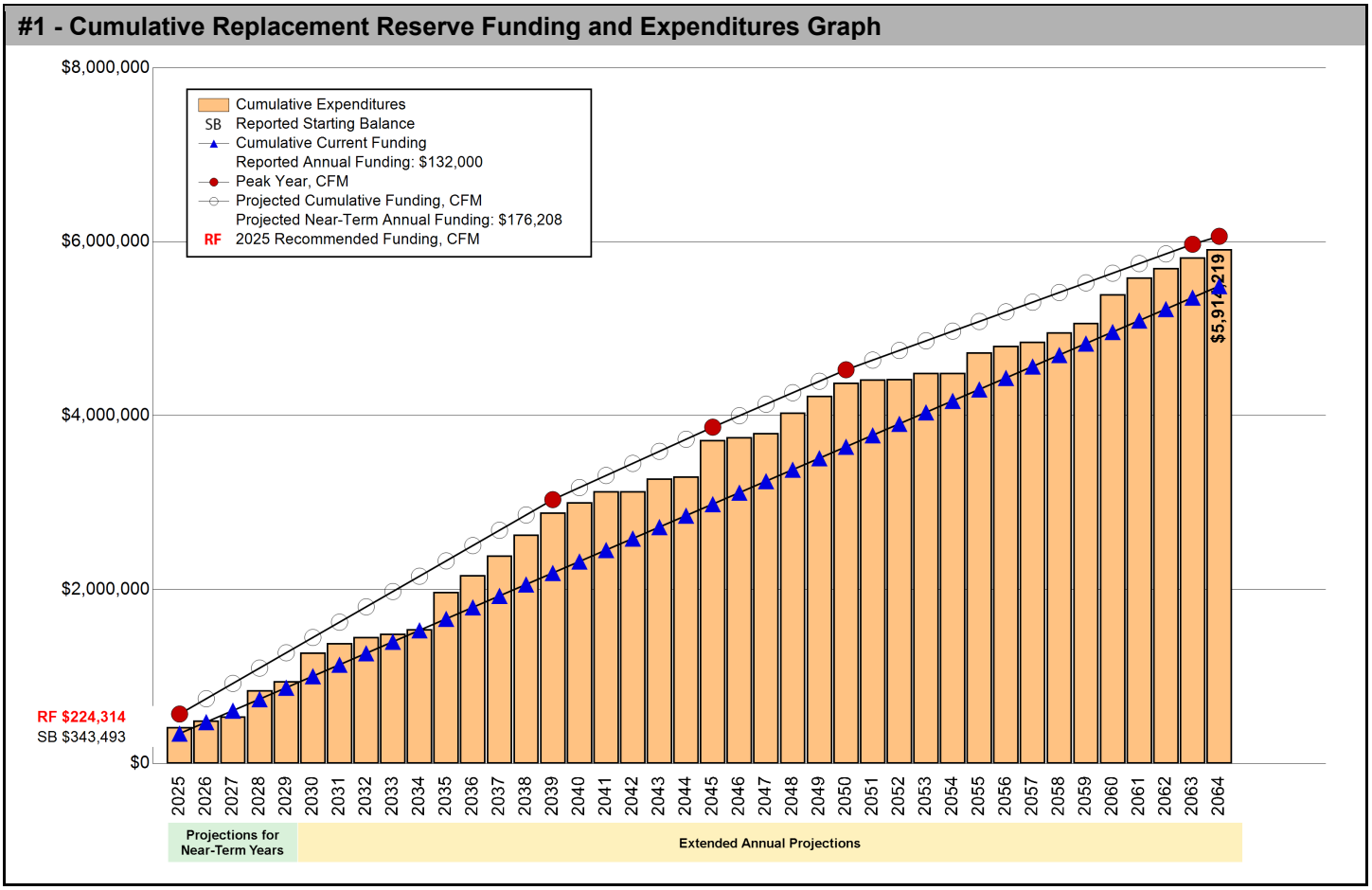
The Charlestowne Village Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 83 Projected Replacements identified in the Replacement Reserve Inventory.

$224,314 **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2025**
$113.29 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.

Charlestowne Village reports a Starting Balance of $343,493 and Annual Funding totaling $132,000, which is inadequate to fund projected replacements starting in 2025. See Page A.3 for a more detailed evaluation.

#1 - Cumulative Replacement Reserve Funding and Expenditures Graph



The high initial Recommended Annual Reserve Funding level is the result of a significant number of replacements being scheduled in the early years of the report. This situation may be exacerbated by the low Starting Balance and the lack of adequate funding of the Reserve Fund. We recommend that the Association increase its Reserve Funding level as soon as possible. Given the high rates of inflation in today's construction industry, the longer that the Association delays in adequately funding its Reserves, the harder it will become to make up for the underfunding. Furthermore, delaying this increase will place an unfair financial burden on long-term and future owners, and may adversely affect property values. Please see Table #5 on page A.4 for a year-by-year breakdown of Recommended Funding and the reduction after Peak Years. Also, see Section C for the Calendar of Annual Projected Replacements.

The next step in the Reserve Study process is for the Board to carefully review the Component Inventory (Section B) to make sure that all included components are the responsibility of the Association, and that the priorities and the timing of the replacement are in keeping with the goals and objectives of the Community.

REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

The Charlestowne Village 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.

2025 **STUDY YEAR**

The Association reports that their accounting year begins on May 1, and the Study Year, the first year evaluated by the Replacement Reserve Analysis, begins on May 1, 2025.

40 Years **STUDY PERIOD**

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

$343,493 **STARTING BALANCE**

The Association reports Replacement Reserves on Deposit totaling $343,493 at the start of the Study Year.

Level Two **LEVEL OF SERVICE**

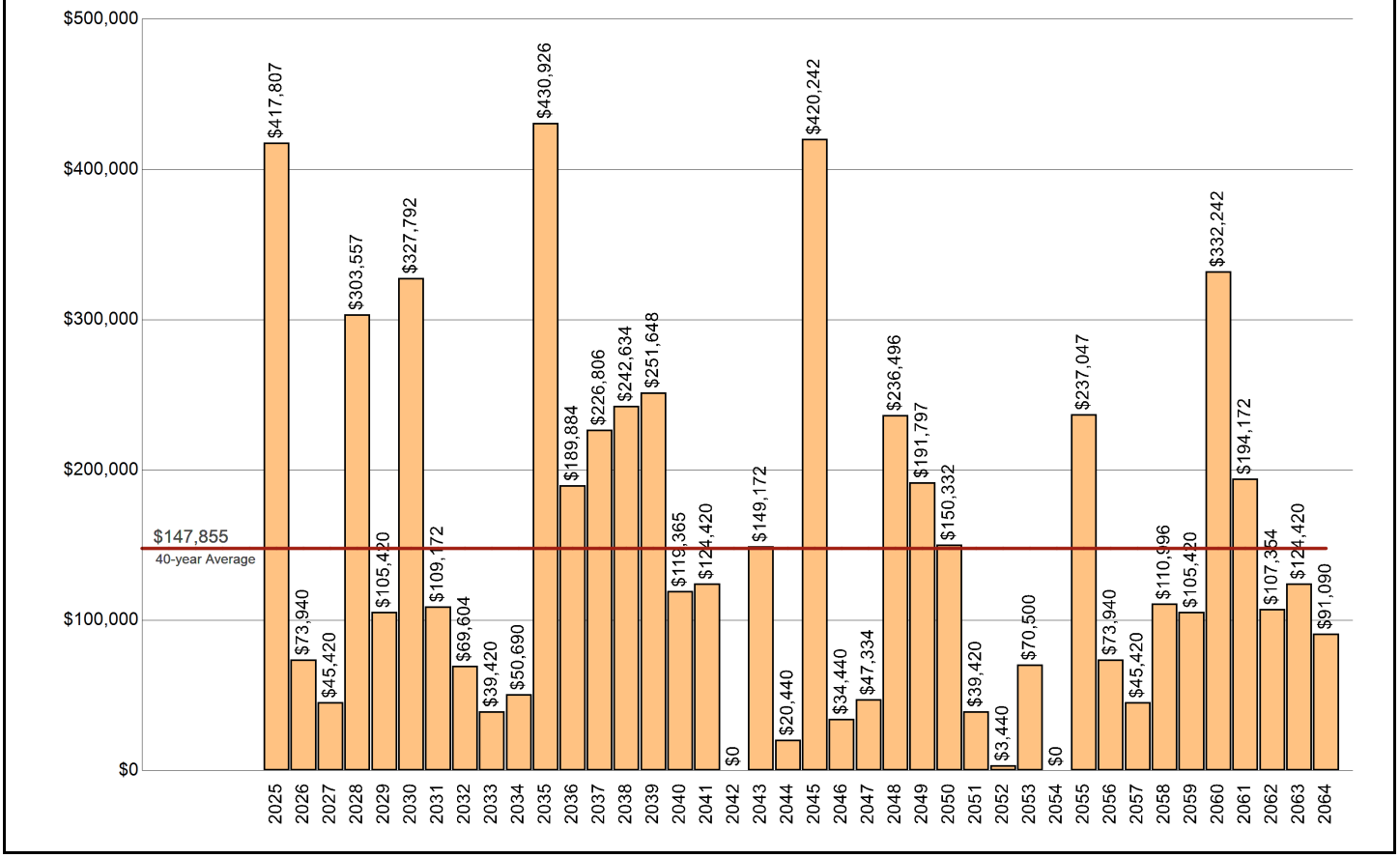
The Replacement Reserve Inventory has been developed in compliance with the National Reserve Study Standards for a Level Two Study, as defined by the Community Associations Institute (CAI).

$5,914,219 **REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS**

The Charlestowne Village Replacement Reserve Inventory identifies 83 items that will require periodic replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be $5,914,219 over the 40-year Study Period. The Projected Replacements are divided into 5 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 $147,855. 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 $5,914,219 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 0 through 39

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Starting Balance	$343,493									
Projected Replacements	($417,807)	($73,940)	($45,420)	($303,557)	($105,420)	($327,792)	($109,172)	($69,604)	($39,420)	($50,690)
Annual Deposit	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000
End of Year Balance	$57,686	$115,746	$202,326	$30,769	$57,349	($138,443)	($115,615)	($53,219)	$39,361	$120,671
Cumulative Expenditures	($417,807)	($491,747)	($537,167)	($840,724)	($946,144)	($1,273,936)	($1,383,108)	($1,452,712)	($1,492,132)	($1,542,822)
Cumulative Receipts	$475,493	$607,493	$739,493	$871,493	$1,003,493	$1,135,493	$1,267,493	$1,399,493	$1,531,493	$1,663,493
Year	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**
Projected Replacements	($430,926)	($189,884)	($226,806)	($242,634)	($251,648)	($119,365)	($124,420)		($149,172)	($20,440)
Annual Deposit	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000
End of Year Balance	($178,255)	($236,139)	($330,945)	($441,579)	($561,227)	($548,592)	($541,012)	($409,012)	($426,184)	($314,624)
Cumulative Expenditures	($1,973,748)	($2,163,632)	($2,390,438)	($2,633,072)	($2,884,720)	($3,004,085)	($3,128,505)	($3,128,505)	($3,277,677)	($3,298,117)
Cumulative Receipts	$1,795,493	$1,927,493	$2,059,493	$2,191,493	$2,323,493	$2,455,493	$2,587,493	$2,719,493	$2,851,493	$2,983,493
Year	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**
Projected Replacements	($420,242)	($34,440)	($47,334)	($236,496)	($191,797)	($150,332)	($39,420)	($3,440)	($70,500)	
Annual Deposit	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000
End of Year Balance	($602,866)	($505,306)	($420,640)	($525,136)	($584,933)	($603,265)	($510,685)	($382,125)	($320,625)	($188,625)
Cumulative Expenditures	($3,718,359)	($3,752,799)	($3,800,133)	($4,036,629)	($4,228,426)	($4,378,758)	($4,418,178)	($4,421,618)	($4,492,118)	($4,492,118)
Cumulative Receipts	$3,115,493	$3,247,493	$3,379,493	$3,511,493	$3,643,493	$3,775,493	$3,907,493	$4,039,493	$4,171,493	$4,303,493
Year	**2055**	**2056**	**2057**	**2058**	**2059**	**2060**	**2061**	**2062**	**2063**	**2064**
Projected Replacements	($237,047)	($73,940)	($45,420)	($110,996)	($105,420)	($332,242)	($194,172)	($107,354)	($124,420)	($91,090)
Annual Deposit	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000
End of Year Balance	($293,672)	($235,612)	($149,032)	($128,028)	($101,448)	($301,690)	($363,862)	($339,216)	($331,636)	($290,726)
Cumulative Expenditures	($4,729,165)	($4,803,105)	($4,848,525)	($4,959,521)	($5,064,941)	($5,397,183)	($5,591,355)	($5,698,709)	($5,823,129)	($5,914,219)
Cumulative Receipts	$4,435,493	$4,567,493	$4,699,493	$4,831,493	$4,963,493	$5,095,493	$5,227,493	$5,359,493	$5,491,493	$5,623,493

EVALUATION OF CURRENT FUNDING

The evaluation of Current Funding (Starting Balance of $343,493 & annual funding of $132,000), is done in today's dollars with no adjustments for inflation or interest earned on Replacement Reserves. The evaluation assumes Replacement Reserves will only be used for the 83 Projected Replacements identified in the Replacement Reserve Inventory and that the Association will continue Annual Funding of $132,000 throughout the 40-year Study Period.

Annual Funding of $132,000 is approximately 59 percent of the $224,314 recommended Annual Funding calculated by the Cash Flow Method for 2025, the Study Year.

See the Executive Summary for the Current Funding Statement.

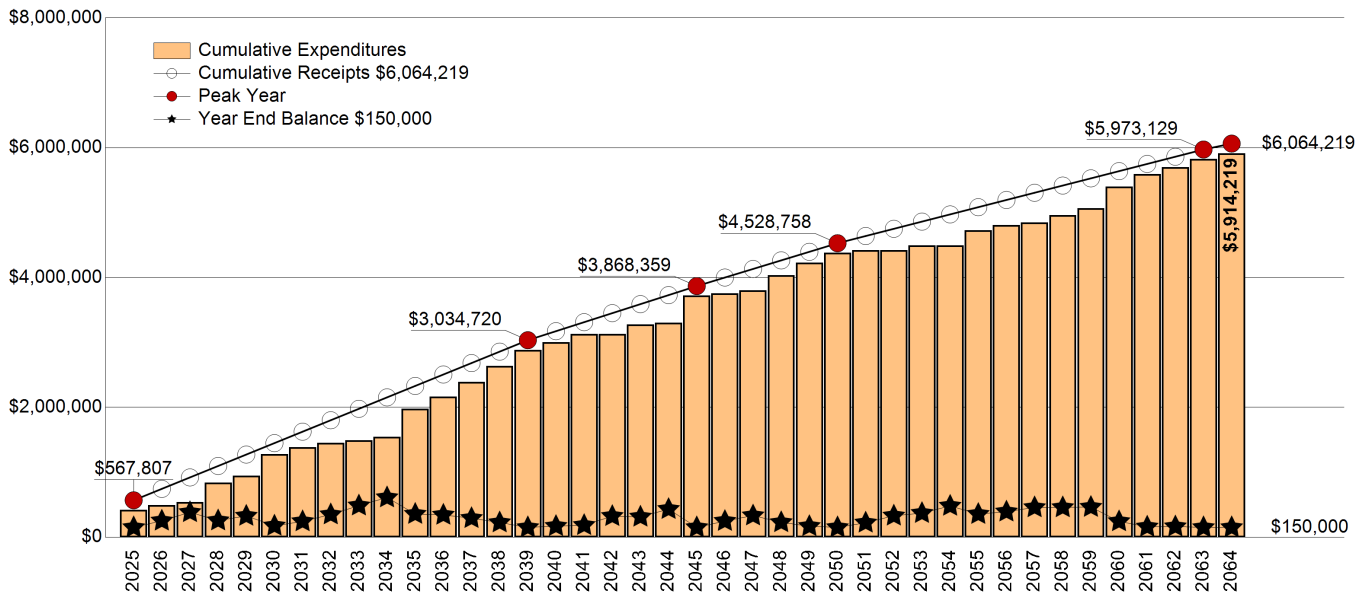
CASH FLOW METHOD FUNDING

$224,314 **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2025**
$113.29 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 2025 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of $417,807 of replacements from 2025 to 2025. Recommended funding is projected to decline from $224,314 in 2025 to $176,208 in 2026. Peak Years are identified in Chart 4 and Table 5.
- **Threshold (Minimum Balance).** The calculations assume a Minimum Balance of $150,000 will always be held in reserve, which is calculated by rounding the 12-month 40-year average annual expenditure of $147,855 as shown on Graph #2.
- **Cash Flow Method Study Period.** Cash Flow Method calculates funding for $5,914,219 of expenditures over the 40-year Study Period. It does not include funding for any projects beyond 2064 and in 2064, the end of year balance will always be the Minimum Balance.

#4 - Cash Flow Method - Graph of Cumulative Receipts and Expenditures - Years 0 through 39



#5 - Cash Flow Method - Table of Receipts & Expenditures - Years 0 through 39

Year	1st Peak - 2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Starting Balance	$343,493									
Projected Replacements	($417,807)	($73,940)	($45,420)	($303,557)	($105,420)	($327,792)	($109,172)	($69,604)	($39,420)	($50,690)
Annual Deposit	$224,314	$176,208	$176,208	$176,208	$176,208	$176,208	$176,208	$176,208	$176,208	$176,208
End of Year Balance	$150,000	$252,268	$383,056	$255,708	$326,496	$174,912	$241,948	$348,552	$485,340	$610,858
Cumulative Expenditures	($417,807)	($491,747)	($537,167)	($840,724)	($946,144)	($1,273,936)	($1,383,108)	($1,452,712)	($1,492,132)	($1,542,822)
Cumulative Receipts	$567,807	$744,015	$920,223	$1,096,431	$1,272,639	$1,448,847	$1,625,056	$1,801,264	$1,977,472	$2,153,680
Year	**2035**	**2036**	**2037**	**2038**	**2nd Peak - 2039**	**2040**	**2041**	**2042**	**2043**	**2044**
Projected Replacements	($430,926)	($189,884)	($226,806)	($242,634)	($251,648)	($119,365)	($124,420)		($149,172)	($20,440)
Annual Deposit	$176,208	$176,208	$176,208	$176,208	$176,208	$138,940	$138,940	$138,940	$138,940	$138,940
End of Year Balance	$356,140	$342,464	$291,866	$225,440	$150,000	$169,575	$184,095	$323,035	$312,802	$431,302
Cumulative Expenditures	($1,973,748)	($2,163,632)	($2,390,438)	($2,633,072)	($2,884,720)	($3,004,085)	($3,128,505)	($3,128,505)	($3,277,677)	($3,298,117)
Cumulative Receipts	$2,329,888	$2,506,096	$2,682,304	$2,858,512	$3,034,720	$3,173,660	$3,312,600	$3,451,540	$3,590,480	$3,729,419
Year	**3rd Peak - 2045**	**2046**	**2047**	**2048**	**2049**	**4th Peak - 2050**	**2051**	**2052**	**2053**	**2054**
Projected Replacements	($420,242)	($34,440)	($47,334)	($236,496)	($191,797)	($150,332)	($39,420)	($3,440)	($70,500)	
Annual Deposit	$138,940	$132,080	$132,080	$132,080	$132,080	$132,080	$111,105	$111,105	$111,105	$111,105
End of Year Balance	$150,000	$247,640	$332,386	$227,970	$168,252	$150,000	$221,685	$329,351	$369,956	$481,062
Cumulative Expenditures	($3,718,359)	($3,752,799)	($3,800,133)	($4,036,629)	($4,228,426)	($4,378,758)	($4,418,178)	($4,421,618)	($4,492,118)	($4,492,118)
Cumulative Receipts	$3,868,359	$4,000,439	$4,132,519	$4,264,598	$4,396,678	$4,528,758	$4,639,863	$4,750,969	$4,862,074	$4,973,180
Year	**2055**	**2056**	**2057**	**2058**	**2059**	**2060**	**2061**	**2062**	**5th Peak - 2063**	**6th Peak - 2064**
Projected Replacements	($237,047)	($73,940)	($45,420)	($110,996)	($105,420)	($332,242)	($194,172)	($107,354)	($124,420)	($91,090)
Annual Deposit	$111,105	$111,105	$111,105	$111,105	$111,105	$111,105	$111,105	$111,105	$111,105	$91,090
End of Year Balance	$355,120	$392,286	$457,971	$458,081	$463,766	$242,630	$159,563	$163,315	$150,000	$150,000
Cumulative Expenditures	($4,729,165)	($4,803,105)	($4,848,525)	($4,959,521)	($5,064,941)	($5,397,183)	($5,591,355)	($5,698,709)	($5,823,129)	($5,914,219)
Cumulative Receipts	$5,084,285	$5,195,391	$5,306,496	$5,417,602	$5,528,707	$5,639,813	$5,750,918	$5,862,024	$5,973,129	$6,064,219

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.

$224,314 **2025 - CASH FLOW METHOD RECOMMENDED FUNDING**

The 2025 Study Year calculations have been made using current replacement costs

$186,781 **2026 - 6% INFLATION ADJUSTED FUNDING**

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

- Starting Balance totaling $150,000 on May 1, 2026.
- 2026 Non inflation replacement costs listed in Section C, $73,940, will be replaced at approximately $78,376, 6.00% inflation increase to 2025 costs.
- The $186,781 inflation-adjusted funding in 2026 is a 6% increase over the non-inflation-adjusted funding of $176,208.

$197,987 **2027 - 6% INFLATION ADJUSTED FUNDING**

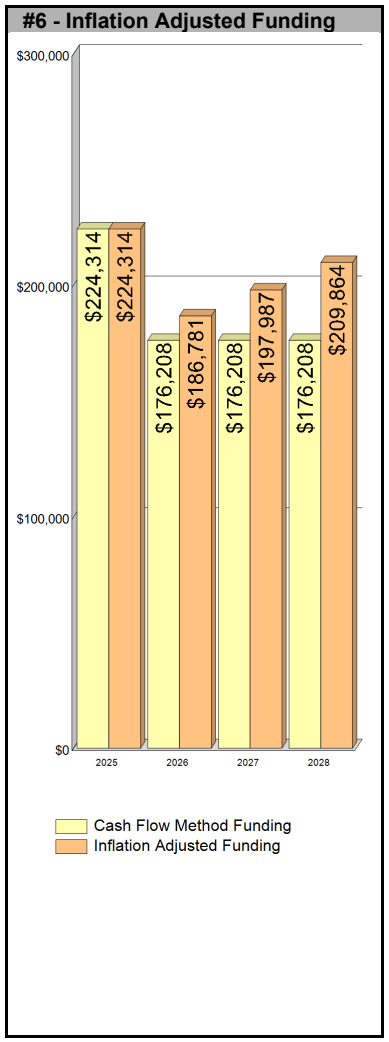
A new analysis calculates the 2027 funding based on three assumptions:

- Starting balance of approximately $309,397 = 2026 Starting Balance $150,000, plus Inflation Adjusted Funding $186,781 for 2026, minus $78,376 2025 Inflation Adjusted Cost.
- 2027 Non inflation replacement costs listed in Section C, $45,420, will be replaced at approximately $50,870, 6.00% inflation increase to 2025 costs.
- The $197,987 inflation-adjusted funding in 2027 is a 6% increase over the non-inflation-adjusted funding of $186,781 for 2026.

$209,864 **2028 - 6% INFLATION ADJUSTED FUNDING**

A new analysis calculates the 2028 funding based on three assumptions:

- Starting balance of approximately $510,565 = 2027 Starting Balance $309,397, plus Inflation Adjusted Funding $197,987 for 2027, minus $50,870 2025 Inflation Adjusted Cost.
- 2028 Non inflation replacement costs listed in Section C, $303,557, will be replaced at approximately $358,197, 6.00% inflation increase to 2025 costs.
- The $209,864 inflation-adjusted funding in 2028 is a 6% increase over the non-inflation-adjusted funding of $197,987 for 2027.



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 2026, 2027 and 2028 inflation-adjusted funding calculations above, the 6.00 percent base rate of inflation used in our calculations should be compared to rates published by the Bureau of Labor Statistics. If there is a significant discrepancy (over 1 percentage point), contact Miller+Dodson Associates prior to using the Inflation Adjusted Funding.

Interest on Reserves

The recommended funding calculations do not account for interest earned on Replacement Reserves. In 2025, based on a 1.00 percent interest rate, we estimate the Association may earn $2,467 on an average balance of $246,747, $2,297 on an average balance of $229,698 in 2026, and $4,100 on $409,981 in 2027. The Association may elect to attribute 100 percent of the earned interest to Reserves, resulting in a reduction in the 2025 funding from $224,314 to $221,847 (a 1.10 percent reduction), $237,773 to $235,476 in 2026 (a 0.96 percent reduction), and $252,039 to $247,939 in 2027 (a 1.62 percent reduction).

REPLACEMENT RESERVE STUDY - SUPPLEMENTAL COMMENTS

Maryland's new Reserves and Reserve Study Law, HB-107, is intended to ensure that adequate Reserve Funding is available for capital repair and replacement projects when it is needed. This is done by funding the Reserve Fund annually. The law requires that the Recommended Annual Reserve Funding amount in the most recent Reserve Study be included in the Association's annual budgets. If this is an Association's "initial" (first) professionally conducted Reserve Study, HB-107 gives the Association up to three (3) fiscal years following the fiscal year in which the Reserve Study was completed, to attain the Annual Reserve Funding level recommended in the initial Reserve Study.

SECTION B - REPLACEMENT RESERVE INVENTORY

- **PROJECTED REPLACEMENTS.** Charlestowne Village - Replacement Reserve Inventory identifies 83 items that are Projected Replacements and the periodic replacements of these items are scheduled for funding from Replacement Reserves. The Projected Replacements have an estimated one-time replacement cost of $2,485,512. Cumulative Replacements totaling $5,914,219 are scheduled in the Replacement Reserve Inventory over the 40-year Study Period. Cumulative Replacements include those components that are replaced more than once during the period of the study.

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

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

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

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

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

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

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

- **CATEGORIES.** The 83 items included in the Charlestowne Village Replacement Reserve Inventory are divided into 5 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 the Community Associations Institute, which states:

  This study has been performed as a Level 2 Update with Site Visit/On-Site Review as defined by the Community Associations Institute's, National Reserve Study Standards. As such, the component inventory is based on the study that was performed by Miller+Dodson in FY 2022. 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 83 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 83 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	Entrance monument, EIFS recoat sign	sf	116	$16.50	15	7	$1,914
2	Entrance monument, EIFS sign	sf	40	$250.00	25	15	$10,000
3	Asphalt pavement, mill and overlay	sf	10,000	$2.45	20	13	$24,500
4	Asphalt pavement, mill and overlay	sf	80,688	$2.45	20	3	$197,686
5	Asphalt pavement, seal coat	sf	90,688	$0.25	5	none	$22,672
6	Asphalt speed bump	lf	150	$120.00	5	none	$18,000
7	Asphalt pavement, crack sealing	lf	5,000	$4.00	5	none	$20,000
8	Parking lot striping	sf	90,688	$0.07	6	none	$6,348

Replacement Costs - Page Subtotal $301,120

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.
- 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.

SITE ITEMS - (cont.)
PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
Continued							
9	Concrete curb and gutter, barrier (6% allowance)	lf	330	$42.00	6	none	$13,860
10	Concrete flatwork (6% allowance)	sf	1,471	$14.00	6	none	$20,594
11	Concrete trash corral pads (6% allowance)	sf	260	$16.00	6	none	$4,160
12	Concrete steps (6% allowance)	ft	90	$175.00	6	none	$15,750
13	Wheel stops, concrete	ea	18	$200.00	20	none	$3,600
						Replacement Costs - Page Subtotal	$57,964

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.
- 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.

SITE ITEMS
PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
14	Retaining wall, PTL (6% allowance)	sf	120	$45.00	6	1	$5,400
15	Retaining wall, segmental block (reset)	sf	2,082	$15.00	10	3	$31,230
16	Retaining wall, brick, repoint (6% allowance)	sf	370	$12.00	6	1	$4,440
17	Fence, vinyl 2-rail and post	ft	110	$25.00	40	3	$2,750
18	Fence, 4' galvanized chain link	ft	193	$22.00	30	3	$4,246
19	Fence, 6' PTL, wood board-on-board	lf	654	$30.00	20	5	$19,620
20	Fence, PTL, wood board at trash enclosures	ea	15	$2,000.00	20	none	$30,000
21	Metal railing, steel/wrought iron	lf	1,630	$75.00	50	10	$122,250
22	Stormwater management (10% allowance)	ls	1	$27,500.00	10	none	$27,500
23	Security light, building mounted	ea	102	$280.00	15	none	$28,560
24	Flood light, ground mounted	ea	1	$210.00	10	3	$210

Replacement Costs - Page Subtotal $276,206

COMMENTS

- Comprehensive drawings detailing the components of the systems listed above were not available for our review. We have included the estimated cost of the systems based upon our experience with other similar communities. We have assumed that 10 percent of the system(s) will require replacement. In the future, this assumption and the estimated costs should be adjusted based upon the community's actual experience as is feasible.

RECREATION ITEMS
PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
25	Tot lot, border PTL	lf	211	$13.00	15	none	$2,743
26	Tot lot surfacing, wood mulch (3")	sf	1,720	$2.00	3	none	$3,440
27	Wood steps, railroad ties	ft	16	$60.00	20	none	$960
28	Fence, 4' PTL, wood board & batten	lf	112	$30.00	20	none	$3,360
29	Tot lot, MP structure, 1 platform and 1 slide (small)	ea	2	$20,000.00	15	3	$40,000
30	Tot lot swing, 3 seat	ea	1	$2,800.00	15	5	$2,800
31	Trash can coated metal (32 gallon wood slat)	ea	1	$1,370.00	10	3	$1,370
32	Bench, coated metal with metal supports (7')	ea	1	$1,370.00	15	5	$1,370
33	Picnic table (PTL wood table and bench)	ea	2	$1,200.00	15	none	$2,400
34	Picnic table (metal)	ea	1	$1,200.00	15	5	$1,200
35	Picnic table (PTL wood table & bench, metal	ea	1	$1,200.00	15	5	$1,200

Replacement Costs - Page Subtotal $60,843

COMMENTS

- Tot lots and tot lot equipment should be evaluated annually by a playground safety specialist for compliance with the Consumer Product Safety Commission, Handbook for Public Playground Safety. Defects should be corrected immediately to protect the users of the facilities from potential injury and the Association from potential liability for those injuries.

EXTERIOR ITEMS
PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
36	Roofing, asphalt shingles, includes flashings, drip	sf	17,000	$5.00	25	10	$85,000
37	Roofing, asphalt shingles	sf	17,000	$5.00	25	11	$85,000
38	Roofing, asphalt shingles	sf	17,000	$5.00	25	12	$85,000
39	Roofing, asphalt shingles	sf	17,000	$5.00	25	13	$85,000
40	Roofing, asphalt shingles	sf	17,000	$5.00	25	14	$85,000
41	Roofing, asphalt shingles, maintenance building	sf	530	$5.00	25	14	$2,650
42	Gutter and downspouts, 5" aluminum	lf	1,257	$12.00	30	10	$15,084
43	Gutter and downspouts, 5" aluminum	lf	1,257	$12.00	30	11	$15,084
44	Gutter and downspouts, 5" aluminum	lf	1,257	$12.00	30	12	$15,084
45	Gutter and downspouts, 5" aluminum	lf	1,257	$12.00	30	13	$15,084
46	Gutter and downspouts, 5" aluminum	lf	1,257	$12.00	30	14	$15,084
47	Gutter and downspouts, 5" aluminum, maintenance	lf	72	$12.00	30	14	$864
48	Vinyl Exterior Shutter	pr	70	$165.00	30	11	$11,550
49	Vinyl Exterior Shutter	pr	70	$165.00	30	12	$11,550
50	Vinyl Exterior Shutter	pr	70	$165.00	30	13	$11,550
51	Vinyl Exterior Shutter	pr	70	$165.00	30	14	$11,550
52	Vinyl Exterior Shutter	pr	70	$165.00	30	15	$11,550

Replacement Costs - Page Subtotal $561,684

COMMENTS

- Item #36: Roofing, asphalt shingles, includes flashings, drip edge, ice shield - Asphalt shingle roof for three buildings each year for five years. Includes trash enclosure roof.
- Item #42: Gutter and downspouts, 5" aluminum - Aluminum gutter and downspout for three buildings each year for five years. Assume this work will track with roof replacement.
- Item #48: Vinyl Exterior Shutter - Vinyl shutters for three buildings each year for five years.

EXTERIOR ITEMS
PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
53	Window, bay or bow	ea	25	$2,500.00	40	16	$62,500
54	Masonry (10% repointing allowance)	sf	3,285	$12.00	10	none	$39,420
55	Masonry (10% repointing allowance)	sf	3,285	$12.00	10	2	$39,420
56	Masonry (10% repointing allowance)	sf	3,285	$12.00	10	4	$39,420
57	Masonry (10% repointing allowance)	sf	3,285	$12.00	10	6	$39,420
58	Masonry (10% repointing allowance)	sf	3,285	$12.00	10	8	$39,420
59	Siding and trim, vinyl, standard (including door trim)	sf	720	$9.00	35	5	$6,480
60	Siding and trim, vinyl, standard, maintenance	sf	800	$9.00	35	5	$7,200
61	Soffit and trim, vinyl (allowance)	sf	5,250	$9.00	35	5	$47,250
62	Soffit and trim, vinyl (allowance)	sf	5,250	$9.00	35	7	$47,250
63	Soffit and trim, vinyl (allowance)	sf	5,250	$9.00	35	9	$47,250
64	Soffit and trim, vinyl (allowance)	sf	5,250	$9.00	35	11	$47,250
65	Soffit and trim, vinyl (allowance)	sf	5,250	$9.00	35	13	$47,250
66	Caulking (allowance)	ls	1	$6,000.00	10	none	$6,000
67	Caulking (allowance)	ls	1	$6,000.00	10	1	$6,000
68	Caulking (allowance)	ls	1	$6,000.00	10	2	$6,000
69	Caulking (allowance)	ls	1	$6,000.00	10	3	$6,000
70	Caulking (allowance)	ls	1	$6,000.00	10	4	$6,000

Replacement Costs - Page Subtotal $539,530

COMMENTS

- Please note that a Reserve Study is based on a visual assessment of those conditions that are visible and apparent at the time of the condition assessment. A comprehensive structural evaluation of the deck/balcony structures is beyond the scope of a Reserve Study. It is recommended that the Association engage a Structural Engineer to conduct a more comprehensive evaluation of the decks/balconies and other building structural elements.
- Item #53: Window, bay or bow - Includes replacement for bay window units only. All other windows are excluded by the Association.
- Item #54: Masonry (10% repointing allowance) - Masonry repointing for three buildings every other year for 8 years.
- Item #61: Soffit and trim, vinyl (allowance) - Includes roof soffits and soffits below certain balconies, 3 buildings each.
- Item #66: Caulking (allowance) - Caulking for three buildings every year for 5 years.

EXTERIOR ITEMS
PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
71	Concrete patio at grade (6% allowance)	sf	400	$14.00	6	none	$5,600
72	Concrete balcony, structural repair (6% allowance)	sf	530	$20.00	6	1	$10,600
73	Structural steel balcony repair (allowance)	ea	5	$5,000.00	10	1	$25,000
74	Metal railing, steel/wrought iron	lf	1,000	$75.00	50	10	$75,000
75	Privacy screen, PTL	lf	500	$45.00	15	1	$22,500
76	Door, steel, flush (3' X 6'8")	ea	31	$1,600.00	25	none	$49,600

Replacement Costs - Page Subtotal $188,300

COMMENTS

- Item #71: Concrete patio at grade (6% allowance) - Concrete slab-on-grade patios at individual townhouse units.
- Item #72: Concrete balcony, structural repair (6% allowance) - Elevated concrete balconies at individual townhouse units. Miller Dodson strongly recommends that the Association retain the services of a Structural Engineer to conduct thorough and periodic evaluations of the building structure, the balconies, and any other structural features of the community.
- Item #73: Structural steel balcony repair (allowance) - *added item
- Item #74: Metal railing, steel/wrought iron - Includes railings at elevated balconies.
- Item #75: Privacy screen, PTL - Treated wood privacy screens at certain individual units.
- Item #76: Door, steel, flush (3' X 6'8") - Steel doors and frames to community laundry rooms and storage rooms.

INTERIOR ITEMS
PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
77	Flooring, vinyl tile	sf	6,216	$5.00	14	none	$31,080
78	Ceiling, suspended	sf	6,216	$10.00	20	none	$62,160
79	Interior lighting, general	ea	133	$125.00	21	3	$16,625

Replacement Costs - Page Subtotal $109,865

COMMENTS

BUILDING SYSTEMS
PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
80	Water heater, commercial gas (80 gallon)	ea	15	$12,000.00	15	5	$180,000
81	Electric panels and breakers	ls	1	$150,000.00	50	42	$150,000
82	Domestic water main (10% allowance)	ft	1	$30,000.00	10	4	$30,000
83	Sanitary sewer main (10% allowance)	ls	1	$30,000.00	10	4	$30,000
					Replacement Costs - Page Subtotal		$390,000

COMMENTS

VALUATION EXCLUSIONS
Excluded Items

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
	Mailboxes						EXCLUDED
	Bollard/access control devices						EXCLUDED
	BBQ						EXCLUDED
	Tennis court posts and nets						EXCLUDED
	Fire extinguisher cabinet						EXCLUDED
	Sprinkler head						EXCLUDED
	Emergency lighting, exit light, etc.						EXCLUDED
	Interior doors						EXCLUDED
	Window unit						EXCLUDED
	Electric heaters						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 ($)	NEL	REL	REPLACEMENT COST ($)
	Bridge structure and foundations						EXCLUDED
	Building foundation(s)						EXCLUDED
	Wall, floor, and roof structure						EXCLUDED
	Fire protection/security systems						EXCLUDED
	Electrical wiring						EXCLUDED
	Gas services at common facilities						EXCLUDED
	Trash chute						EXCLUDED
	Stainless steel pool fixtures						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
	Driveway on an individual lot						EXCLUDED
	Apron on an individual lot						EXCLUDED
	Curb & gutter on an individual lot						EXCLUDED
	Dock on an individually lot						EXCLUDED
	Unit doors						EXCLUDED
	Unit skylights						EXCLUDED
	Unit mailbox						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 ($)	NEL	REL	REPLACEMENT COST ($)
	Electric transformers						EXCLUDED
	Cable TV systems and structures						EXCLUDED
	Telephone cables and structures						EXCLUDED
	Gas mains and meters						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 ($)	NEL	REL	REPLACEMENT COST ($)
	Landscaping and site grading						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, lighting						EXCLUDED
	Government, stormwater mgmt.						EXCLUDED
	Government, ponds						EXCLUDED
	Government, mailboxes						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.

IRRIGATION SYSTEM EXCLUSIONS

Excluded Items

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
	Subsurface irrigation pipe						EXCLUDED
	Subsurface irrigation valve						EXCLUDED
	Subsurface irrigation control wiring						EXCLUDED
	Irrigation control system						EXCLUDED
	Irrigation system electrical service						EXCLUDED
	Irrigation system enclosures						EXCLUDED

IRRIGATION SYSTEM EXCLUSIONS

Comments

- Irrigation System Exclusions. We have assumed that the maintenance, repair, and periodic replacement of the components of the extensive irrigation systems at the property will not be funded from Replacement Reserves. These systems should be inspected each spring when the systems are brought online and again each fall when they are winterized. Repair(s) and or replacement(s) should be made in conjunction with these semiannual inspections.

SECTION C - CALENDAR OF PROJECTED ANNUAL REPLACEMENTS

GENERAL STATEMENT. The 83 Projected Replacements in the Charlestowne Village Replacement Reserve Inventory whose replacement is scheduled to be funded from Replacement Reserves are broken down on a year-by-year basis, beginning on Page C.2.

REPLACEMENT RESERVE ANALYSIS AND INVENTORY POLICIES, PROCEDURES, AND ADMINISTRATION

- **REVIEW OF THE REPLACEMENT RESERVE STUDY.** For this study to be effective, it should be reviewed by the Board of Directors, those responsible for the management of the items included in the Replacement Reserve Inventory, and the accounting professionals employed by the Association.
- **REVISIONS.** Revisions will be made to the Replacement Reserve Analysis and Replacement Reserve Inventory in accordance with the written instructions of the Board of Directors. No additional charge is incurred for the first revision if requested in writing within three months of the date of the Replacement Reserve Study. It is our policy to provide revisions in electronic (Adobe PDF) format only. We acknowledge that there are instances in which multiple revisions are necessary. However, unnecessary multiple revisions drain our time and manpower resources. Therefore, MillerDodson will exercise its sole discretion as to whether additional charges are incurred.
- **TAX CODE**. The United States Tax Code grants favorable tax status to a common interest development (CID) meeting certain guidelines for their Replacement Reserve. If a CID files their taxes as a 'Corporation' on Form 1120 (IRC Section 277), these guidelines typically require maintenance activities, partial replacements, minor replacements, capital improvements, and one-time-only replacements to be excluded from Reserves. A CID cannot co-mingle planning for maintenance activities with capital replacement activities in the Reserves (Revenue Ruling 75-370). Funds for maintenance activities and capital replacement activities must be held in separate accounts. If a CID files taxes as an "Exempt Homeowners Association" using Form 1120H (IRC Section 528), the CID does not have to segregate these activities. However, because the CID may elect to change their method of filing from year to year within the Study Period, we advise using the more restrictive approach. We further recommend that the CID consult with their Accountant and consider creating separate and independent accounts and reserves for large maintenance items, such as painting.
- **CONFLICT OF INTEREST.** Neither MillerDodson Associates nor the Reserve Analyst has any prior or existing relationship with this Association which would represent a real or perceived conflict of interest.
- **RELIANCE ON DATA PROVIDED BY THE CLIENT.** Information provided by an official representative of the Association regarding financial, physical conditions, quality, or historical issues is deemed reliable.
- **INTENT.** This Replacement Reserve Study is a reflection of the information provided by the Association and the visual evaluations of the Analyst. It has been prepared for the sole use of the Association and is not for the purpose of performing an audit, quality/forensic analyses, or background checks of historical records.
- **PREVIOUS REPLACEMENTS.** Information provided to MillerDodson Associates regarding prior replacements is considered to be accurate and reliable. Our visual evaluation is not a project audit or quality inspection.
- **EXPERIENCE WITH FUTURE REPLACEMENTS.** The Calendar of Annual Projected Replacements, lists replacements we have projected to occur over the Study Period and begins on Page C2. Actual experience in replacing the items may differ significantly from the cost estimates and time frames shown because of conditions beyond our control. These differences may be caused by maintenance practices, inflation, variations in pricing and market conditions, future technological developments, regulatory actions, acts of God, and luck. Some items may function normally during our visual evaluation and then fail without notice.

PROJECTED REPLACEMENTS

Item	2025 - Study Year	$
5	Asphalt pavement, seal coat	$22,672
6	Asphalt speed bump	$18,000
7	Asphalt pavement, crack sealing	$20,000
8	Parking lot striping	$6,348
9	Concrete curb and gutter, barrier (6% allowance)	$13,860
10	Concrete flatwork (6% allowance)	$20,594
11	Concrete trash corral pads (6% allowance)	$4,160
12	Concrete steps (6% allowance)	$15,750
13	Wheel stops, concrete	$3,600
20	Fence, PTL, wood board at trash enclosures	$30,000
22	Stormwater management (10% allowance)	$27,500
23	Security light, building mounted	$28,560
25	Tot lot, border PTL	$2,743
26	Tot lot surfacing, wood mulch (3")	$3,440
27	Wood steps, railroad ties	$960
28	Fence, 4' PTL, wood board & batten	$3,360
33	Picnic table (PTL wood table and bench)	$2,400
54	Masonry (10% repointing allowance)	$39,420
66	Caulking (allowance)	$6,000
71	Concrete patio at grade (6% allowance)	$5,600
76	Door, steel, flush (3' X 6'8")	$49,600
77	Flooring, vinyl tile	$31,080
78	Ceiling, suspended	$62,160
	Total Scheduled Replacements	$417,807

Item	2026 - YEAR 1	$
14	Retaining wall, PTL (6% allowance)	$5,400
16	Retaining wall, brick, repoint (6% allowance)	$4,440
67	Caulking (allowance)	$6,000
72	Concrete balcony, structural repair (6% allowance)	$10,600
73	Structural steel balcony repair (allowance)	$25,000
75	Privacy screen, PTL	$22,500
	Total Scheduled Replacements	$73,940

Item	2027 - YEAR 2	$
55	Masonry (10% repointing allowance)	$39,420
68	Caulking (allowance)	$6,000
	Total Scheduled Replacements	$45,420

Item	2028 - YEAR 3	$
4	Asphalt pavement, mill and overlay	$197,686
15	Retaining wall, segmental block (reset)	$31,230
17	Fence, vinyl 2-rail and post	$2,750
18	Fence, 4' galvanized chain link	$4,246
24	Flood light, ground mounted	$210
26	Tot lot surfacing, wood mulch (3")	$3,440
29	Tot lot, MP structure, 1 platform and 1 slide (small)	$40,000
31	Trash can coated metal (32 gallon wood slat)	$1,370
69	Caulking (allowance)	$6,000
79	Interior lighting, general	$16,625
	Total Scheduled Replacements	$303,557

PROJECTED REPLACEMENTS

Item	2029 - YEAR 4	$
56	Masonry (10% repointing allowance)	$39,420
70	Caulking (allowance)	$6,000
82	Domestic water main (10% allowance)	$30,000
83	Sanitary sewer main (10% allowance)	$30,000
	Total Scheduled Replacements	$105,420

Item	2030 - YEAR 5	$
5	Asphalt pavement, seal coat	$22,672
6	Asphalt speed bump	$18,000
7	Asphalt pavement, crack sealing	$20,000
19	Fence, 6' PTL, wood board-on-board	$19,620
30	Tot lot swing, 3 seat	$2,800
32	Bench, coated metal with metal supports (7')	$1,370
34	Picnic table (metal)	$1,200
35	Picnic table (PTL wood table & bench, metal supports)	$1,200
59	Siding and trim, vinyl, standard (including door trim)	$6,480
60	Siding and trim, vinyl, standard, maintenance building	$7,200
61	Soffit and trim, vinyl (allowance)	$47,250
80	Water heater, commercial gas (80 gallon)	$180,000
	Total Scheduled Replacements	$327,792

Item	2031 - YEAR 6	$
8	Parking lot striping	$6,348
9	Concrete curb and gutter, barrier (6% allowance)	$13,860
10	Concrete flatwork (6% allowance)	$20,594
11	Concrete trash corral pads (6% allowance)	$4,160
12	Concrete steps (6% allowance)	$15,750
26	Tot lot surfacing, wood mulch (3")	$3,440
57	Masonry (10% repointing allowance)	$39,420
71	Concrete patio at grade (6% allowance)	$5,600
	Total Scheduled Replacements	$109,172

Item	2032 - YEAR 7	$
1	Entrance monument, EIFS recoat sign	$1,914
14	Retaining wall, PTL (6% allowance)	$5,400
16	Retaining wall, brick, repoint (6% allowance)	$4,440
62	Soffit and trim, vinyl (allowance)	$47,250
72	Concrete balcony, structural repair (6% allowance)	$10,600
	Total Scheduled Replacements	$69,604

PROJECTED REPLACEMENTS

Item	2033 - YEAR 8	$
58	Masonry (10% repointing allowance)	$39,420
	Total Scheduled Replacements	$39,420

Item	2034 - YEAR 9	$
26	Tot lot surfacing, wood mulch (3")	$3,440
63	Soffit and trim, vinyl (allowance)	$47,250
	Total Scheduled Replacements	$50,690

Item	2035 - YEAR 10	$
5	Asphalt pavement, seal coat	$22,672
6	Asphalt speed bump	$18,000
7	Asphalt pavement, crack sealing	$20,000
21	Metal railing, steel/wrought iron	$122,250
22	Stormwater management (10% allowance)	$27,500
36	Roofing, asphalt shingles, includes flashings, drip edge,	$85,000
42	Gutter and downspouts, 5" aluminum	$15,084
54	Masonry (10% repointing allowance)	$39,420
66	Caulking (allowance)	$6,000
74	Metal railing, steel/wrought iron	$75,000
	Total Scheduled Replacements	$439,926

Item	2036 - YEAR 11	$
37	Roofing, asphalt shingles	$85,000
43	Gutter and downspouts, 5" aluminum	$15,084
48	Vinyl Exterior Shutter	$11,550
64	Soffit and trim, vinyl (allowance)	$47,250
67	Caulking (allowance)	$6,000
73	Structural steel balcony repair (allowance)	$25,000
	Total Scheduled Replacements	$189,884

PROJECTED REPLACEMENTS

Item	2037 - YEAR 12	$
8	Parking lot striping	$6,348
9	Concrete curb and gutter, barrier (6% allowance)	$13,860
10	Concrete flatwork (6% allowance)	$20,594
11	Concrete trash corral pads (6% allowance)	$4,160
12	Concrete steps (6% allowance)	$15,750
26	Tot lot surfacing, wood mulch (3")	$3,440
38	Roofing, asphalt shingles	$85,000
44	Gutter and downspouts, 5" aluminum	$15,084
49	Vinyl Exterior Shutter	$11,550
55	Masonry (10% repointing allowance)	$39,420
68	Caulking (allowance)	$6,000
71	Concrete patio at grade (6% allowance)	$5,600
	Total Scheduled Replacements	$226,806

Item	2038 - YEAR 13	$
3	Asphalt pavement, mill and overlay	$24,500
14	Retaining wall, PTL (6% allowance)	$5,400
15	Retaining wall, segmental block (reset)	$31,230
16	Retaining wall, brick, repoint (6% allowance)	$4,440
24	Flood light, ground mounted	$210
31	Trash can coated metal (32 gallon wood slat)	$1,370
39	Roofing, asphalt shingles	$85,000
45	Gutter and downspouts, 5" aluminum	$15,084
50	Vinyl Exterior Shutter	$11,550
65	Soffit and trim, vinyl (allowance)	$47,250
69	Caulking (allowance)	$6,000
72	Concrete balcony, structural repair (6% allowance)	$10,600
	Total Scheduled Replacements	$242,634

Item	2039 - YEAR 14	$
40	Roofing, asphalt shingles	$85,000
41	Roofing, asphalt shingles, maintenance building	$2,650
46	Gutter and downspouts, 5" aluminum	$15,084
47	Gutter and downspouts, 5" aluminum, maintenance	$864
51	Vinyl Exterior Shutter	$11,550
56	Masonry (10% repointing allowance)	$39,420
70	Caulking (allowance)	$6,000
77	Flooring, vinyl tile	$31,080
82	Domestic water main (10% allowance)	$30,000
83	Sanitary sewer main (10% allowance)	$30,000
	Total Scheduled Replacements	$251,648

Item	2040 - YEAR 15	$
2	Entrance monument, EIFS sign	$10,000
5	Asphalt pavement, seal coat	$22,672
6	Asphalt speed bump	$18,000
7	Asphalt pavement, crack sealing	$20,000
23	Security light, building mounted	$28,560
25	Tot lot, border PTL	$2,743
26	Tot lot surfacing, wood mulch (3")	$3,440
33	Picnic table (PTL wood table and bench)	$2,400
52	Vinyl Exterior Shutter	$11,550
	Total Scheduled Replacements	$119,365

PROJECTED REPLACEMENTS

Item	2041 - YEAR 16	$
53	Window, bay or bow	$62,500
57	Masonry (10% repointing allowance)	$39,420
75	Privacy screen, PTL	$22,500
	Total Scheduled Replacements	$124,420

Item	2042 - YEAR 17	$
	No Scheduled Replacements	

Item	2043 - YEAR 18	$
8	Parking lot striping	$6,348
9	Concrete curb and gutter, barrier (6% allowance)	$13,860
10	Concrete flatwork (6% allowance)	$20,594
11	Concrete trash corral pads (6% allowance)	$4,160
12	Concrete steps (6% allowance)	$15,750
26	Tot lot surfacing, wood mulch (3")	$3,440
29	Tot lot, MP structure, 1 platform and 1 slide (small)	$40,000
58	Masonry (10% repointing allowance)	$39,420
71	Concrete patio at grade (6% allowance)	$5,600
	Total Scheduled Replacements	$149,172

Item	2044 - YEAR 19	$
14	Retaining wall, PTL (6% allowance)	$5,400
16	Retaining wall, brick, repoint (6% allowance)	$4,440
72	Concrete balcony, structural repair (6% allowance)	$10,600
	Total Scheduled Replacements	$20,440

PROJECTED REPLACEMENTS

Item	2045 - YEAR 20	$
5	Asphalt pavement, seal coat	$22,672
6	Asphalt speed bump	$18,000
7	Asphalt pavement, crack sealing	$20,000
13	Wheel stops, concrete	$3,600
20	Fence, PTL, wood board at trash enclosures	$30,000
22	Stormwater management (10% allowance)	$27,500
27	Wood steps, railroad ties	$960
28	Fence, 4' PTL, wood board & batten	$3,360
30	Tot lot swing, 3 seat	$2,800
32	Bench, coated metal with metal supports (7')	$1,370
34	Picnic table (metal)	$1,200
35	Picnic table (PTL wood table & bench, metal supports)	$1,200
54	Masonry (10% repointing allowance)	$39,420
66	Caulking (allowance)	$6,000
78	Ceiling, suspended	$62,160
80	Water heater, commercial gas (80 gallon)	$180,000
Total Scheduled Replacements		$420,242

Item	2046 - YEAR 21	$
26	Tot lot surfacing, wood mulch (3")	$3,440
67	Caulking (allowance)	$6,000
73	Structural steel balcony repair (allowance)	$25,000
Total Scheduled Replacements		$34,440

Item	2047 - YEAR 22	$
1	Entrance monument, EIFS recoat sign	$1,914
55	Masonry (10% repointing allowance)	$39,420
68	Caulking (allowance)	$6,000
Total Scheduled Replacements		$47,334

Item	2048 - YEAR 23	$
4	Asphalt pavement, mill and overlay	$197,686
15	Retaining wall, segmental block (reset)	$31,230
24	Flood light, ground mounted	$210
31	Trash can coated metal (32 gallon wood slat)	$1,370
69	Caulking (allowance)	$6,000
Total Scheduled Replacements		$236,496

PROJECTED REPLACEMENTS

Item	2049 - YEAR 24	$
8	Parking lot striping	$6,348
9	Concrete curb and gutter, barrier (6% allowance)	$13,860
10	Concrete flatwork (6% allowance)	$20,594
11	Concrete trash corral pads (6% allowance)	$4,160
12	Concrete steps (6% allowance)	$15,750
26	Tot lot surfacing, wood mulch (3")	$3,440
56	Masonry (10% repointing allowance)	$39,420
70	Caulking (allowance)	$6,000
71	Concrete patio at grade (6% allowance)	$5,600
79	Interior lighting, general	$16,625
82	Domestic water main (10% allowance)	$30,000
83	Sanitary sewer main (10% allowance)	$30,000
	Total Scheduled Replacements	$191,797

Item	2050 - YEAR 25	$
5	Asphalt pavement, seal coat	$22,672
6	Asphalt speed bump	$18,000
7	Asphalt pavement, crack sealing	$20,000
14	Retaining wall, PTL (6% allowance)	$5,400
16	Retaining wall, brick, repoint (6% allowance)	$4,440
19	Fence, 6' PTL, wood board-on-board	$19,620
72	Concrete balcony, structural repair (6% allowance)	$10,600
76	Door, steel, flush (3' X 6'8")	$49,600
	Total Scheduled Replacements	$150,332

Item	2051 - YEAR 26	$
57	Masonry (10% repointing allowance)	$39,420
	Total Scheduled Replacements	$39,420

Item	2052 - YEAR 27	$
26	Tot lot surfacing, wood mulch (3")	$3,440
	Total Scheduled Replacements	$3,440

PROJECTED REPLACEMENTS

Item	2053 - YEAR 28	$
58	Masonry (10% repointing allowance)	$39,420
77	Flooring, vinyl tile	$31,080
	Total Scheduled Replacements	$70,500

Item	2054 - YEAR 29	$
	No Scheduled Replacements	

Item	2055 - YEAR 30	$
5	Asphalt pavement, seal coat	$22,672
6	Asphalt speed bump	$18,000
7	Asphalt pavement, crack sealing	$20,000
8	Parking lot striping	$6,348
9	Concrete curb and gutter, barrier (6% allowance)	$13,860
10	Concrete flatwork (6% allowance)	$20,594
11	Concrete trash corral pads (6% allowance)	$4,160
12	Concrete steps (6% allowance)	$15,750
22	Stormwater management (10% allowance)	$27,500
23	Security light, building mounted	$28,560
25	Tot lot, border PTL	$2,743
26	Tot lot surfacing, wood mulch (3")	$3,440
33	Picnic table (PTL wood table and bench)	$2,400
54	Masonry (10% repointing allowance)	$39,420
66	Caulking (allowance)	$6,000
71	Concrete patio at grade (6% allowance)	$5,600
	Total Scheduled Replacements	$237,047

Item	2056 - YEAR 31	$
14	Retaining wall, PTL (6% allowance)	$5,400
16	Retaining wall, brick, repoint (6% allowance)	$4,440
67	Caulking (allowance)	$6,000
72	Concrete balcony, structural repair (6% allowance)	$10,600
73	Structural steel balcony repair (allowance)	$25,000
75	Privacy screen, PTL	$22,500
	Total Scheduled Replacements	$73,940

PROJECTED REPLACEMENTS

Item	2057 - YEAR 32	$
55	Masonry (10% repointing allowance)	$39,420
68	Caulking (allowance)	$6,000
	Total Scheduled Replacements	$45,420

Item	2058 - YEAR 33	$
3	Asphalt pavement, mill and overlay	$24,500
15	Retaining wall, segmental block (reset)	$31,230
18	Fence, 4' galvanized chain link	$4,246
24	Flood light, ground mounted	$210
26	Tot lot surfacing, wood mulch (3")	$3,440
29	Tot lot, MP structure, 1 platform and 1 slide (small)	$40,000
31	Trash can coated metal (32 gallon wood slat)	$1,370
69	Caulking (allowance)	$6,000
	Total Scheduled Replacements	$110,996

Item	2059 - YEAR 34	$
56	Masonry (10% repointing allowance)	$39,420
70	Caulking (allowance)	$6,000
82	Domestic water main (10% allowance)	$30,000
83	Sanitary sewer main (10% allowance)	$30,000
	Total Scheduled Replacements	$105,420

Item	2060 - YEAR 35	$
5	Asphalt pavement, seal coat	$22,672
6	Asphalt speed bump	$18,000
7	Asphalt pavement, crack sealing	$20,000
30	Tot lot swing, 3 seat	$2,800
32	Bench, coated metal with metal supports (7')	$1,370
34	Picnic table (metal)	$1,200
35	Picnic table (PTL wood table & bench, metal supports)	$1,200
36	Roofing, asphalt shingles, includes flashings, drip edge,	$85,000
80	Water heater, commercial gas (80 gallon)	$180,000
	Total Scheduled Replacements	$332,242

PROJECTED REPLACEMENTS

Item	2061 - YEAR 36	$
8	Parking lot striping	$6,348
9	Concrete curb and gutter, barrier (6% allowance)	$13,860
10	Concrete flatwork (6% allowance)	$20,594
11	Concrete trash corral pads (6% allowance)	$4,160
12	Concrete steps (6% allowance)	$15,750
26	Tot lot surfacing, wood mulch (3")	$3,440
37	Roofing, asphalt shingles	$85,000
57	Masonry (10% repointing allowance)	$39,420
71	Concrete patio at grade (6% allowance)	$5,600
Total Scheduled Replacements		$194,172

Item	2062 - YEAR 37	$
1	Entrance monument, EIFS recoat sign	$1,914
14	Retaining wall, PTL (6% allowance)	$5,400
16	Retaining wall, brick, repoint (6% allowance)	$4,440
38	Roofing, asphalt shingles	$85,000
72	Concrete balcony, structural repair (6% allowance)	$10,600
Total Scheduled Replacements		$107,354

Item	2063 - YEAR 38	$
39	Roofing, asphalt shingles	$85,000
58	Masonry (10% repointing allowance)	$39,420
Total Scheduled Replacements		$124,420

Item	2064 - YEAR 39	$
26	Tot lot surfacing, wood mulch (3")	$3,440
40	Roofing, asphalt shingles	$85,000
41	Roofing, asphalt shingles, maintenance building	$2,650
Total Scheduled Replacements		$91,090

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SECTION D - CONDITION ASSESSMENT

General Comments. MillerDodson Associates conducted a Reserve Study at Charlestowne Village in February 2025. Charlestowne Village appears to be generally in good condition for a residential condominium constructed in 1964. A review of the Replacement Reserve Inventory will show that we anticipate most of the components achieving their normal economic lives.

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

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

General Condition Statements.

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

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

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

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

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

(Continued on next page)

SITE ITEMS

Entry Monument and Signage. The Association maintains an entry monument with piers. The monument is made of wood, fiberboard, foam board, and EIFS and appears to be in good condition, with no noted damaged areas or weathering. We recommend replacing it every 10 to 15 years to keep it fresh and appealing. Community signage, including speed, stop, street, and other miscellaneous signs, is not considered in this study and should be replaced using other funds.

Asphalt Pavement. The Association is responsible for the roadways and parking areas within the community. The city, county, or other municipality maintains other roadways. The Association's asphalt pavements generally appear to be in fair condition. Asphalt overlay and sealing work completed in 2020 indicates that the Association is working to keep all asphalt surfaces in serviceable condition. The report segregates asphalt mill & overlay at areas re-worked in 2020 from the remainder of the asphalt areas not recently re-worked, with appropriate remaining economic life factors assigned to each.

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

Street Name	SF
Prince James Court (drive and parking areas)	54580
Parking area off Prince James Way (Units 8040-8046)	2140
Parking area off Lakecrest Drive (Units 8016-8038)	3990
Parking area off Lakecrest Drive (Units 7940-8014)	3990
Parking area off Lakecrest Drive (Units 7724-7938)	25980

The Defects noted include the following:

- **Open Cracks.** There are multiple locations where open cracks allow 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 regular maintenance, clean and fill all other cracks.
- **Alligatoring.** There are multiple locations where the asphalt has developed a cracking pattern known as alligatoring. The primary cause of alligatoring is an unstable base. Once these cracks extend through the asphalt, they will allow water to penetrate the base, accelerating the rate of deterioration and eventually leading to potholes. The only solution is to remove the defective asphalt, compact the base, and install new base materials and asphalt.
- **Improper Grading.** The asphalt pavement is not adequately graded, resulting in water ponding, most notably in the area in front of the storage/maintenance building. 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 do not convey 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.
- **Depressions.** There are areas where the asphalt surface is depressed due to deformation in the surface or underlying layers. 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.

- **Edge Cracking.** Asphalt pavement sections have developed cracks along the pavement edges due to improper confinement. The installation of curbs or a compacted gravel shoulder at the time of an overlay project can address this defect.

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

As a rule, asphalt should be overlaid when approximately 5% of the surface area is cracked or deteriorated. The normal service life of asphalt pavement is typically 18 to 20 years. To maintain the condition of the pavement throughout the community and ensure the longest life of the asphalt, we recommend the Association 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 the Reserves will not fund it.
- **Crack Repair.** All cracks should be repaired with an appropriate compound to prevent water infiltration through the asphalt into the base. This repair should be done annually. Crack repair is normally considered a maintenance activity and is not funded by Reserves. Areas of extensive cracking or deterioration that cannot be made watertight should be cut out and patched.
- **Seal Coating.** The asphalt should be seal-coated every five to seven years. For this maintenance activity to be effective in extending the life of the asphalt, cleaning, and crack repair should be performed first.

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

Several different products are available for seal coating. The older, more traditional seal coating product is paint. They coat the surface of the asphalt, and they are minimally effective. However, the newer coating materials, such as those from Total Asphalt Management and Asphalt Restoration Technologies, Inc., are penetrating. They are engineered, so to speak, to '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 as cracking and potholes. Remoisturizing the pavement can return its flexibility and extend the life of the pavement.

Traffic Calming. The community currently maintains 7-speed humps, which appear to be in overall fair condition with areas of general deterioration, including cracking and areas of separation, and one damaged, most likely by snowplow. The approximately 3' X 20' speed humps are raised traffic calming devices (approximately 2,940 square feet) that range in height from 3 to 4 inches. They are parabolic in shape and are placed across the road to slow traffic. Speed humps are the most popular physical traffic calming measure in the United States today.

Concrete Work. The concrete work includes the community sidewalks, lead walks, stairs, stoops, patios, curb & gutter, and other miscellaneous flatwork. We have modeled for curb replacement when the asphalt pavement is overlaid.

The overall condition of the concrete work varies from recently replaced to concrete work that has cracked, settled, and spalled. We noted instances of tripping hazards and recommended that these areas be promptly replaced. Another

potentially hazardous condition is the undermining of concrete stairs and walks due to erosion by stormwater and improperly installed rain leaders. We recommend adding stone along the borders in erosion areas to stabilize the concrete.

The recent replacement of concrete slabs and stairs indicates the Association has an ongoing maintenance program.

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 during 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.

Trash Corrals. The community has 15 trash corrals, one at each building. The trash corrals include a concrete pad and wood enclosures with asphalt shingle roofs, which appear to be in good to fair condition.

Retaining Walls. The Association maintains several retaining walls, including treated wood, segmental block, poured concrete, brick, and concrete block masonry. The treated wood retaining walls throughout the property mostly appear to be in poor condition. We noted numerous instances of rotting and loose connections.

The segmental block walls at two locations along the property line adjacent to Lakecrest Drive appear to be in good general condition, and minor maintenance is required to extend their economic life.

The poured concrete and concrete block retaining walls are located along concrete stairways and adjacent to certain sidewalks and parking areas. They appear to be in generally good condition, although we noted minor cracking and deterioration of surface parging.

The brick retaining walls are primarily located at the below-grade access ways to the laundry rooms and storage rooms at either end of each of the twelve buildings and one end of three buildings. The condition of these walls varies from good to poor, with the primary deficiencies being loose and missing mortar, loose and missing brickwork, loose and deteriorating brickwork at metal railing bases, and through-wall cracking.

Retaining walls are generally designed to provide slope stabilization and soil retention through a structural system. Typically, walls three feet high or more require some level of design.

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

Wood. Wood retaining walls will experience rot and decay over time, and partial replacement of defective wooden members is often possible in the early stages of decay. Eventually, however, these walls will require replacement. Wood retaining walls can have a useful life of 25 to 35 years.

Brick and Concrete Block. Brick and concrete block masonry walls can have an extended useful life of 40 years or more and, if stable, may only require periodic re-pointing and localized repair. Repoint is raking out defective masonry joints and tooling new mortar into the joints. Properly mortared and tooled joints will repel the weather and keep water from penetrating the wall. Siloxane or other breathable sealants should be considered to protect the wall from water penetration. This study assumes that re-pointing will be performed incrementally as needed to maintain the life of the wall.

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

Poured Concrete. Poured concrete retaining walls can have an extended useful life of 60 years or more and, if stable, may only require periodic localized repair. Siloxane or other breathable sealants should be considered to protect the wall from water penetration. This study assumes that concrete repairs will be performed incrementally as needed.

Retaining wall replacement can be costly, and early planning on the Association's part can help reduce the impact of this work on the community's budget in the future. We, therefore, recommend having a Professional Engineer inspect the walls and develop preliminary replacement alternatives and recommendations based on the site conditions, replacement costs, and recommended replacement wall types. This information can then be incorporated into future updates to the Reserve Study.

Fencing. The Association maintains board-on-board wood, vinyl, and chain-link fencing at various locations throughout the community. Fencing systems have many configurations and finishes that can usually be repaired as a maintenance activity by replacing individual components as they become damaged or weathered.

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

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

Cedar fencing should be cleaned and sealed every year or two. If properly maintained, this type of fence can last 20 to 25 years.

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.

Chain link fencing can last 40 years or more. Periodic weed control may be required to protect and maintain the fence.

The Association maintains steel fence posts and fasteners embedded in concrete or masonry.

As part of normal maintenance, we recommend the following:

- Lift or remove ornamental base covers, if applicable.
- Remove the existing caulk completely.
- Clean, prime, and paint all posts.
- Apply an appropriate caulk around each post base.
- Tool and shape caulking to shed water from the post.
- Reinstall base covers, seal and paint all joints.

If these simple maintenance activities are performed, fence posts can have an extended useful life. If left unattended, the pressure from expansive post rust can crack and damage the supporting material.




Metal Hand Railing and Guardrails. The Association maintains metal handrails, railings, and railing posts embedded in concrete or masonry throughout the community. These handrails include free-standing rail systems, railings mounted to walls along stairways, guardrails at the top perimeter of retaining walls, and guardrails at the edges of elevated balcony structures.

These railings appear to be in good condition and well-maintained by the Association. We noted deficiencies with the stability of the post bases mounted in the brick masonry retaining walls and concrete steps due to either corrosion or loose and broken brick. These conditions could compromise the stability of the associated railing system, creating a potential hazard.

An area of concern is the lack of handrails at certain stair structures at the site, including steps to concrete stoops at individual units. We recommend the Association consider installing handrails at these locations, notably when these stairs are replaced as part of ongoing maintenance activities.

The elevated balconies' condition was only assessed by ground-level observation; the actual condition of these railings has not been determined. As noted for the concrete balcony structures, we recommended that the Association retain the services of a structural engineer to perform a comprehensive inspection of the elevated deck structures, including the railings and their support systems, to establish their structural integrity.

As part of routine maintenance, we recommend the following:

- Lift or remove ornamental base covers, if applicable.
- Remove the existing caulk altogether.
- Fully clean, prime, and paint all posts, rails, and pickets.
- Apply an appropriate caulk around each post base.
- Tool and shape caulking to shed water from the post.
- Reinstall base covers, seal and paint all joints.

Railings can have an extended useful life if these simple maintenance activities are performed regularly. If left unattended, the pressure from expansive post rust can crack and damage the supporting materials.

Site Lighting. The Association is responsible for operating the facility's wall-mounted security lighting and the ground-mounted light at the monument sign. These lights appear to be in serviceable condition, although the proper operation of this lighting has not been verified. During the site survey, we noted that several lights were illuminated during daylight, suggesting improper light controller operation.

If a whole-scale lighting replacement project is needed, we recommend consulting with a lighting design expert. Many municipalities have design codes, guidelines, and restrictions regarding exterior illumination. Additionally, new technology, such as LED and LIFI, among others, is considered. The Association should consider factors such as environmental sustainability, longevity, and cost when replacing its lighting.

Sheds. The Association owns a storage shed that is used for storage purposes. The shed appears to be in good condition. We have assumed that the components of the shed's exterior will be replaced as needed, and when a complete replacement is required, it will be replaced with one of a similar type and size.

RECREATION ITEMS

Tot Lots. The community maintains a tot lot, including two play structures and a three-seat swing. The play surface comprises two levels connected by a treated wood stair. The play surface is of wood chips surrounded by a treated wood border. The play area is enclosed on one side by the board-on-board fence at the property line (included under the Site Items) and on two sides by a wood rail and batten fence, portions of which are attached to the treated wood border. The remaining side of the play area is open.

The play structures are in generally good condition, with minor wear and a few loose connections noted. However, the play surface and wood border, including the steps, have reached the end of their economic life and need to be replaced. Although the wood board-and-batten fence and stair rail appear to be in fair condition, any repair or replacement of these items would need to be coordinated with the replacement of the wood border to which they are attached.

A metal picnic table and a metal bench are located at the Tot Lot, and both appear to be in good condition. Two wood picnic tables elsewhere are in poor condition and should be replaced. One wood picnic table with metal support appears to be in fair condition. When evaluating a playground, the safety of each piece of playground equipment and the layout of the entire play area should be considered. The installation and maintenance of protective surfacing under and around all equipment are crucial. Please note that the evaluation of the equipment and safety of these facilities is beyond the scope of this work.

The Public Playground Safety Handbook, U.S. Consumer Product Safety Commission (Pub Number 325), provides information on playground design and safety. For a link to this handbook, please visit our website at www.mdareserves.com/resources/links/recreation. Our estimates for playground equipment are based on comparing photos of the existing equipment with equipment of a similar size in manufacturers' catalogs. We used the pricing quoted by manufacturers for comparable equipment and added 30% for the disposal of the old equipment and installation of new equipment.

EXTERIOR ITEMS

Building Roofing. The roofs at all 15 townhouse buildings, the storage/maintenance building, and each trash enclosure are covered with shingles. According to the Association, these roofs have been replaced with 25-year fiberglass shingles within the last 8 years, with the latest replacement completed last year.

According to Association documentation, the re-roofing included the replacement of ridge vents, vent pipe flashing, aluminum flashing (as necessary), and drip edge flashing. Based upon an inspection of the roof surfaces from ground level, all roof surfaces and flashings appear in good condition, with exceptions noted. We noted loose shingles on the ground in several areas.

Some roof areas have become discolored where downspouts from upper roof surfaces discharge onto lower roof surfaces. Although this is unsightly, the performance of the roof surface itself does not appear to be compromised. Organic growth noted on some lower roof surface areas, if not checked, may result in accelerated degradation of these surfaces. Finally, areas are noted where sheet-metal counter flashing is excessively deflected from the adjacent roof surface, which may allow water to intrude the roof surface and adjacent wall area.

The remaining economic life of the roofing is based upon the estimated 25-year warranty minus the eleven to fourteen years that have elapsed since the installation of the initial re-roofing.

Asphalt shingle roofs can last 20 to 50 years, depending on the weight and quality of the shingle. Weathered, curled, and missing shingles indicate that they may be nearing the end of their useful life.

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




Gutters and Downspouts. The buildings have an aluminum gutter and downspout roof drainage system. In Areas with two roof levels, the upper roof surfaces drain via downspouts, which discharge onto the lower surface. All other downspouts drain to splash blocks at the ground surface, directly to grade, or are connected to below-grade drainage systems. The Association reports that gutters and downspout replacement, where necessary, occurred as part of the building re-roofing process.

Generally, the gutter and downspout systems appear to function acceptably, although we noted loose connections, bent downspouts, loose flashing, and joint sealant deterioration. We noted damaged downspout base elbows, most likely from lawn maintenance string machines. We also noted erosion at locations where splash blocks are not present or where the connection of downspouts to the below-grade drainage piping is loose. This erosion, if left unchecked, could cause damage to building foundations over time. Finally, there are locations where the water discharge from downspouts at upper roof areas appears to discharge over lower roof areas with such force as to overflow the lower gutter. This overflow could have undesirable effects on the wall and ground surfaces below.

A gutter and downspout system will remove rainwater from the area of the building's roof, siding, and foundation and protect the exterior surfaces from water damage. Gutters should run the full length of all drip edges of the building's roof. Even with full gutters, it is important to inspect the function of the gutters during heavy rain to identify any deficiencies. It may be necessary to periodically adjust the slope of sections, repair connections, replace hangers, and install shrouds to the gutter system. Downspouts should be securely attached to the side of the structure. Any broken straps should be replaced.

The outlet area should be inspected to promote the run-off in the desired direction. Long straight runs should have an elbow at the bottom. Splash blocks should be installed to fray the water out-letting from the downspout.

It is recommended that all gutters be cleaned at least twice each year. If there are many trees located close to a building, consider installing a gutter debris shield that will let water into the gutters but filter out leaves, twigs, and other debris.

It is also recommended that the discharge from the downspouts be extended at least ten feet away from the foundations.

Vinyl Shutters. There are 350 windows with shutters. The vinyl shutters appear to be in fair condition, and we have used an average cost for their replacement. Vinyl window shutters have a typical economic life of 20 to 30 years, depending on several factors, including the quality of the shutter, how well it was installed, and exposure to sunlight and wind. In addition, the community is responsible for the unit entrance portico trim, including the pilasters and pediments.

In general, we recommend coordinating the replacement of these units with other exterior work, such as siding and roof replacements. The weather tightness of the building envelope often requires transitional flashing and caulking that should be performed in coordination with each other. Warranties and advantages in 'economy of scale' can often result in lower overall replacement costs and more reliable results. Lastly, coordinated replacements offer the opportunity to correct initial construction defects and improve the effectiveness of details with improved construction techniques and materials. For more information, please see our links at https://mdareserves.com/resources/links/building-exterior.

Bay Window and Doors. The Association is responsible for the common bay windows and for the exterior doors located in each laundry room and storage room. The individual owners are responsible for all other windows and doors attributed to their unit.

The bay windows appear to be in good serviceable condition. Most of the metal doors to the laundry and storage areas exhibit deterioration in the form of rust, particularly at the lower parts of the metal frames in contact with the concrete slab. In some cases, this deterioration has advanced to the degree that the integrity of the door and frame system is compromised. We also noticed a broken door. The remaining economic life of these doors and frames has been adjusted to accommodate this condition.

For Associations, where the unit owner is responsible for the replacement of their own windows and exterior doors, we recommend that the Association consider offering the unit owners an option to have their replacements performed in conjunction with the Association's work. This can be performed either by a separate agreement between the unit owner and the Association's selected contractor or by back-charging the unit owner.

Window and door units play an integral part in a facility's overall comfort, efficiency, and energy use. The quality of the installed units and the care taken on their installation and maintenance are major factors in their effectiveness and useful life. These units can have a useful life of 20 to 35 years or more depending on their use and other factors mentioned above.

In general, we recommend coordinating the replacement of these units with other exterior work, such as siding and roof replacements. The weather tightness of the building envelope often requires transitional flashing and caulking that should be performed in coordination with each other. Warranties and advantages in 'economy of scale' can often result in lower overall replacement costs and results that are more reliable. Lastly, coordinated replacements offer the opportunity to correct initial construction defects and improve the effectiveness of details with improved construction techniques and materials.

Masonry. The brick veneer masonry appears to be in fair condition. Brick masonry is used as the primary exterior cladding of the building. As masonry weathers, the mortar joints will become damaged by water penetration. As additional water gains access to the joints, repeated freeze-thaw cycles gradually increase the damage to the mortar joints. If allowed to progress, even the masonry units, such as brick, can have their surfaces affected, and masonry units can become loose.

We noted the repaired spalling of the brick face at the exterior building walls. Face brick spalling indicates water intrusion into the brick surface and freezing. A program to manage loose and missing mortar at brick joints and the discoloration of the brick due to organic growth is apparent. Wall areas where brick has been replaced and re-pointed suggest this is an ongoing issue.

In the previous study, in 2022, settlement cracking was noted in particular interior concrete masonry walls in laundry/storage rooms. Settlement cracking at concrete slabs exterior to these rooms suggests settlement issues may be related to stormwater management problems. We recommend that a qualified building inspector further examine these issues. In general, masonry is considered a long-life item and is therefore excluded from reserve funding. However, because weather and other conditions result in the slow deterioration of the mortar in masonry joints, we have included funding for repointing in this study. Repointing is the process of raking and cutting out damaged sections of mortar and replacing them with new mortar.

Periodic repointing and local replacement of damaged masonry units will limit the damage done by moisture penetration. For this study, we assume that 10 percent of the masonry will require repointing every 10 years after approximately 30 years.

Please note that MillerDodson did not conduct a structural evaluation of the building structure. Such an evaluation is beyond the Scope of this Reserve Study. MillerDodson strongly recommends that the Association retain the services of a Structural Engineer to conduct thorough and periodic evaluations of the buildings, balconies, and any other structural components of the buildings and amenities of the Association.

Masonry Chimneys. There are about 75 chimneys in the buildings, and they appear to be in fair condition. Chimney caps have a typical service life of 20 years. All chimney caps were observed from the ground level. We noted corrosion on a number of the caps, open mortar joints, or a loose brick on the top of a chimney.

Siding and Trim. The Association maintains the exterior siding and trim at the townhouse and storage/maintenance buildings. In general, the siding and trim appear to be in fair condition. We noted loose sections and discoloration due to organic growth. We also noted deteriorated wood gable vents from rot.

Vinyl/Aluminum 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 replacing the siding and trim every 25 years.

Synthetic products are often used in decorative architectural details. These are often made of Polyvinyl chloride (PVC), which is known to have degradation problems with sunlight and ultraviolet radiation. These products come from the manufacturer with several coats of primer, and painting after installation is required. Following the manufacturer's recommendations for cleaning, painting, and caulking, we expect this product to have a useful life of 40 years or more.

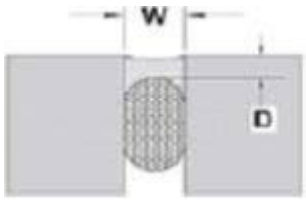
Caulking. The caulking on the facility's exteriors appears to be in fair to poor condition. We noted separated caulk joints.

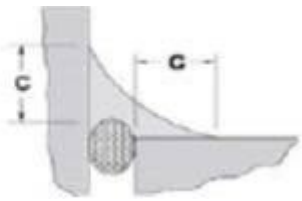
Caulking and sealants protect the facility's exterior components and the overall weather tightness. Caulking also provides a seal between dissimilar materials and changes in construction where movement is expected. We, therefore, recommend recaulking every ten years when painting or other exterior repairs and replacements are scheduled.

Sealant joints allow for movement at the vertical joints. Allowance for compression and expansion is required for the system to be effective and can be achieved, in part, with the installation of properly sized foam backer rods and gunned in the sealants. The sealant should only adhere to the parallel surfaces and is not intended to adhere to the foam backer rod. The foam rod should be placed at a depth approximately equal to the width of the joint.

Polyurethane caulk is preferred for outdoor applications. Polyurethane sealant is durable and flexible caulk that offers excellent performance in any vertical or horizontal joint designed per accepted architectural/engineering practices, with high-quality products with an exterior life span of 10 years or more, depending on exposure. Polyurethane products bond to most surfaces, including masonry and metal, and hold up to heavy movement (25% elasticity).

A closed-cell or reticulated polyethylene backer rod is recommended as joint backing to control sealant depth and to ensure intimate contact of sealant with joint walls when tooling. Where the depth of the joint will prevent the use of a backer rod, an adhesive-backed polyethylene tape (bond breaker tape) should be used to prevent three-sided adhesion. All backing should be dry at the time of sealant application.





Any sealant application's minimum width and depth should be 1/4 by 1/4 (6mm by 6mm). The depth (D) of sealant may be equal to the width (W) of joints that are less than 1/2 wide. For joints ranging from 1/2 to 1 (13 mm to 25 mm) wide, the sealant depth should be approximately one-half of the joint width. The maximum depth (D) of any sealant application should be 1/2 (13 mm). For fillet or angle beads around windows, doors, soffits, and trim, the sealant should exhibit a minimum surface contact area (C) of 1/4 onto each substrate.

When recaulking, a simple overlay of the old caulk is improper. Rather, defective caulk joints should be completely cut out, cleaned, and prepped, with new backer materials installed as needed. New caulk can then be applied according to the manufacturer's guidelines and recommendations.

Concrete Balconies. The Association maintains the concrete balconies at each of the 15 townhouse buildings. We observed two types of balcony structures: self-supporting slabs and slabs supported by a metal deck and steel beam and column system. The condition of these balconies, as assessed from the ground level, appears to be generally good; this includes the concrete slabs (visible areas of the bottom surfaces and at the edges), supporting steel column structures, and the wrought iron railings. The condition of the balcony surfaces has not been verified.

Based upon casual observation of the visible parts of the decks from the ground, it appears that these deck structures exhibit a normal aging process, with some cracking and initial concrete degradation. Areas of previous repair were also noted. However, a detailed observation of the deck structures, railings, connections, and other appurtenances has not been made. As this report does not intend to assess the structural integrity of these deck structures, it is recommended that the Association retain the services of a structural engineer to perform a comprehensive inspection of the elevated deck structures and their support systems to establish their structural integrity.

The previous study in 2022 noted no major defects that appear significant, although cracking in the concrete decks near support structures, cracks in supporting brick masonry, and brick spalling at balcony-bearing locations. These defects should be closely monitored to determine if these conditions worsen over time. We noted replaced brick at the edges of some balconies, indicating an ongoing masonry pointing and repair program.

Please note that MillerDodson did not conduct a structural evaluation of the exterior stairs, decks, or balconies. Such an evaluation is beyond the Scope of this Reserve Study. MillerDodson strongly recommends that the Association retain the services of a Structural Engineer to conduct thorough and periodic evaluations of the buildings, balconies, and any other structural components of the Association's buildings and amenities.

Due to their exposure to the elements, concrete balconies are prone to deterioration. This deterioration begins within the concrete and slowly progresses to the surface. By the time it becomes visible, the damage has been done, and expensive and extensive remedial action is typically required.

The leading cause of concrete balcony deterioration is the corrosion of the embedded reinforcing steel. Water penetrates the concrete surface or enters the concrete through penetrations such as railing mounting holes, and when water meets the reinforcing steel, corrosion results. As the steel corrodes, it expands, putting pressure on the surrounding concrete. This pressure will eventually result in cracks, delamination, and spalling. The corrosion rate is influenced by the concrete's thickness and density, the water infiltration rate, and the installation of carpet or other water-retaining materials on the balcony’s surface.

We recommend that the Association implement an annual inspection and power-washing program. Carpet or other water-trapping coverings should be prohibited, and potted plants should be placed on raised feet for proper air circulation and drying.

Additionally, we recommend applying appropriate sealants or coatings to the concrete deck's top surface and exposed edges and re-caulking all railing posts mounted into the deck slab. The underside of the concrete deck should be left untreated or treated with a breathable finish to allow entrapped moisture to escape.

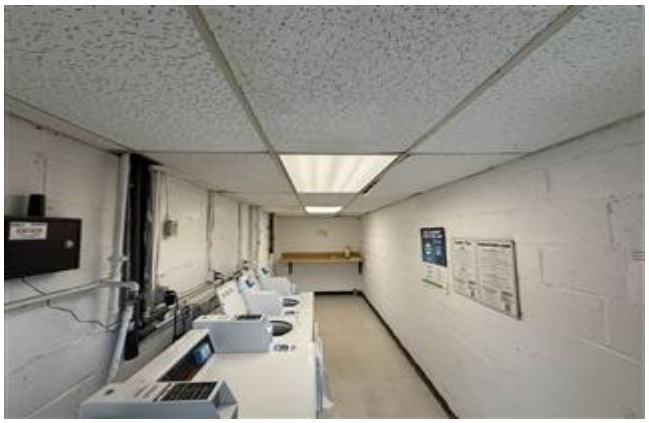
Please note that your State or local jurisdiction may have specific requirements for deck and balcony inspections, such as the recently enacted Maryland HB 947 (Jonathan's Law). This level of inspection is beyond the scope of work for this Reserve Study.

INTERIOR ITEMS

Flooring, Vinyl Tile. The Association maintains the vinyl tile flooring in the common laundry rooms and areas where the laundry rooms and storage rooms are in the same space. The floors in the separate storage rooms are painted concrete and are excluded from the study.

The vinyl flooring tile condition appears fair. Water intrusion into a few of these rooms can cause these tiles to buckle and discolor. Tiles that have become loose have the potential to become tripping hazards. Some drainage systems have been installed in a few of these spaces to divert surface water to sump pits. In 2022, in some cases, the covers to the sump pit are incorrectly installed, which may present a hazard. We did not observe sump pits in this study.

Ceiling Tile. The Association maintains suspended acoustic tile ceilings in the common laundry rooms. The ceiling areas where the laundry and storage rooms are in the same space and in the separate storage rooms are painted gypsum board and excluded from the study. We noted openings in the drywall ceilings in the storage areas, presumably for piping or wiring repairs. This condition may negatively affect the assembly's fireproofing integrity. We noted the condition of these ceilings ranges from fair to poor, with numerous instances of loose, missing, stained, and damaged ceiling panels. It is important that the integrity of these ceiling tiles be maintained, as they help to insulate the above spaces to protect the piping installed above them. Any gaps or missing tiles will allow cold air to penetrate the space above the tile, increasing heat loss from the conditioned space and increasing the chances of freezing the piping above the tile. We recommend that the tile be inspected in the fall and after any work is completed in the space above the tile.



Interior Lighting: The Association maintains the interior lighting in the laundry and storage rooms. The lighting in the individual laundry rooms consists of 2x4 lay-in fluorescent fixtures. The lighting consists of various types, including surface-mounted 2x4 fluorescent lights, incandescent lights, and LED lights in areas where the laundry and storage rooms and separate storage rooms are in the same space. The condition of these light fixtures ranges from good to poor. Some fixtures appear to be newer or have been retrofitted with LED luminaries, while others are in poor condition. We noted inoperative luminaries and stained diffusers.

BUILDING SYSTEMS

Water Heater. The Association maintains fifteen 80-gallon gas-fired storage water heaters that appear to be in good condition. Water heaters of this type and in this application have an expected useful life of 15 years.

Storage water heaters often utilize a glass-lined storage tank and sacrificial cathode to reduce the accumulation of minerals on the heating surfaces, leading to early failure. Modern units can be equipped with insulation, heat-trapping outlets, sediment control mechanisms, drains, and certified pressure relief valves, in addition to some units having digital logic circuits and IOT capabilities such as WiFi connectivity and programmable thermostat modes.

Water heaters are available in Tank-Type Storage and Tankless-Type Demand units. Fuels are either electric, gas, or solar. Heat pump-type and pulse combustion units are very energy efficient.

Building Electrical Service. The Association maintains the main switchgear at each of the 15 townhouse buildings and the individual distribution panels at each of the 165 units. The Association replaced all electrical panels within the units and common areas in 2019. We presume that all of these replaced systems are in good condition. Stickers visible on some of these panels indicate that they have passed inspection by the authority having jurisdiction.

in the 2022 reserve study it was noted that other components of the overall electrical systems at the buildings appear to be in poor condition. We observed conditions such as rusting box covers, rusting conduit (some at the exterior), exposed wiring with what appears to be damaged insulation, and improper wiring methods such as cords to sump pumps plugged into what appears to be non-GFI receptacles. We recommend that a licensed electrician inspect these items to determine if there are any safety issues associated with these conditions.

The sump pumps were not observed and are excluded from the Reserve Analysis. Sump pumps should be repaired or replaced, as needed, with other funds.

Other than the items indicated above, transformers and meters, and, if protected from water damage or overloading, interior electrical systems within a building, including feed lines and switchgear, are considered long-life components and, unless otherwise noted, are excluded from this study.

Periodic tightening of all connections is recommended every three to five years to maintain equipment properly. Insurance policies may, in some cases, have specific requirements regarding the tightening of electrical connections. Outlets, sockets, switches, and minor fixtures should also be replaced at a maximum of every thirty years.

Unless otherwise identified, replacement of these smaller components is considered incidental to refurbishment or a valuation exclusion.

(Continued on next page)




Electrical Distribution Panels. The electrical distribution panels located throughout the facility were replaced in 2019. For the purposes of this study, it is assumed that these panels have a rated service life of 50 years or more.

Electrical Switchgear. The primary electrical switchgear dates to the original construction of the building. Electrical switchgear has a rated service life of 50 years or more. Electrical switchgear requires ongoing maintenance for proper operation and reliability.

Underground Utilities. The Association is responsible for maintaining and replacing underground domestic water and sanitary sewer lines. The condition of these underground systems has not been verified. Engineering drawings were not used in the determination of these underground components. Instead, we have provided an estimate of the approximate replacement costs based on our experience with other facilities of similar size and configuration. The inspection and evaluation of underground lines and structures is beyond the scope of work for this study.


Building Piping. Copper water supply piping has been used in the main service piping and risers to the buildings.

Copper Piping. As a result of changes in water chemistry that have been brought on by federal clean water legislation, copper piping throughout the Washington, DC metropolitan area has been developing pin-hole leaks which lead to high maintenance costs and a significantly shorter normal service life. For further information about the problem and research that is being conducted, go towww.wssc.dst.md.us, click on the dropdown box labeled “Customers”, and click on the listing for “PinHole Leaks”. As a result of this problem, the piping will have to be replaced at some point in time. Assuming that the chemical deterioration from the water content is inevitable, we have included funding for this work in the reserve study. In estimating the amount to be reserved, we have assumed that the cost of any unit plumbing lines will be paid by unit owners and that the cost of funding risers will be paid from reserves.

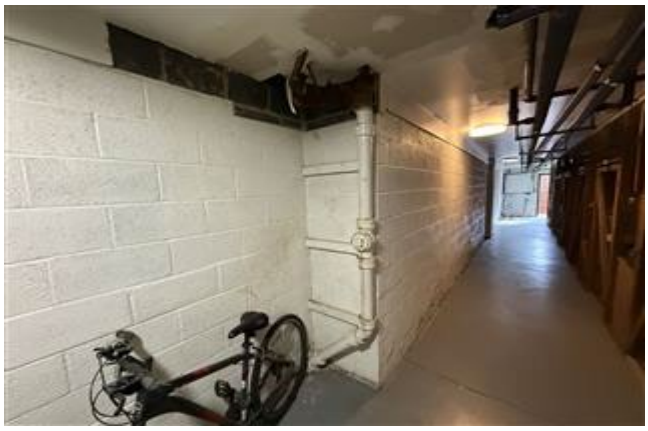
Water quality, in particular the Ph of the water, is critical to the longevity of these systems, and typically, the pressurized water supply lines are the most problematic followed by the central heating and cooling lines.

Please note that the timeframe for repiping a facility can vary widely, and the estimation of the remaining economic life is highly speculative. Given the age of the facility, the Association should be aware of the various technologies available for pipe replacement and pipelining, including traditional pipe replacement, replacement with CPVC and other synthetic pipes, and linings from companies such as Ace Duraflo and Curaflo. However, Miller+Dodson does not endorse any specific process or company.

For budgeting purposes, an allowance every 25 years is included in this study for repiping work. Please note that this work has a high degree of variability depending on the layout of the facility and accessibility to the piping components.

To gain a better understanding of the condition of this facility’s pipes and water supply lines, we recommend having an expert evaluation of the piping performed. This evaluation should provide an estimation of the remaining useful life of the piping systems, the condition of the water supply, and recommendations for replacement to maximize the remaining useful life of this facility’s piping systems.

Cast Iron Drain, Waste, & Vent Piping. Cast iron piping was originally installed in the building. Properly installed cast iron drain, waste, and vent (DWV) piping systems can have a service life of 100 years or more. The most common problems with cast iron DWV systems are failures of the joints, cracks, and corrosion. We understand that no significant problems have been reported with the system's operation. The system is reported to be in good operating condition with no leaks. We have assumed that minor repairs will be paid for with maintenance funds and are therefore excluded from the Reserve Analysis. We have included an allowance for more significant repairs to the piping system periodically.



Wall Heaters. The buildings' laundry rooms have electric wall heaters. We did not observe any conditions related to the electric heaters that require immediate capital expenditure. The heater units were reported as operational. Wall heaters are being replaced as needed.

HVAC Systems. The facility's air conditioning (HVAC) consists of one window air conditioning unit located in the basement and is reported to be in good operating condition. Detailed inspection and testing of these systems are beyond the scope of this study. The A/C unit is excluded from the Reserve Analysis and should be replaced as needed with other funds. As with most equipment, proper maintenance is essential to achieve a maximum useful economic life. In some cases, proper and proactive maintenance can greatly extend the useful life of these components.

Code Compliance Comments. Although the code compliance of various building systems and components is not considered part of this replacement reserve study, certain observed conditions are of concern.

The most notable condition is the many instances where the gypsum board ceilings in various storage rooms have been removed (for what appears to be the installation of piping and/or mechanical venting systems) and not replaced. This has left the above-ceiling space open to the storage room, thereby exposing the floor structure of the residential units above.

If, as is likely, these ceilings form part of a fire-rated floor-ceiling assembly between the storage areas and the residential units above, the lack of integrity of these systems (due to the missing gypsum board finish) could present a life-safety concern in the event of a fire.

We recommend that the Association have a qualified building inspector render an expert opinion regarding this condition and that the Association make any needed remedial repairs.

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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SECTION A - FINANCIAL ANALYSIS

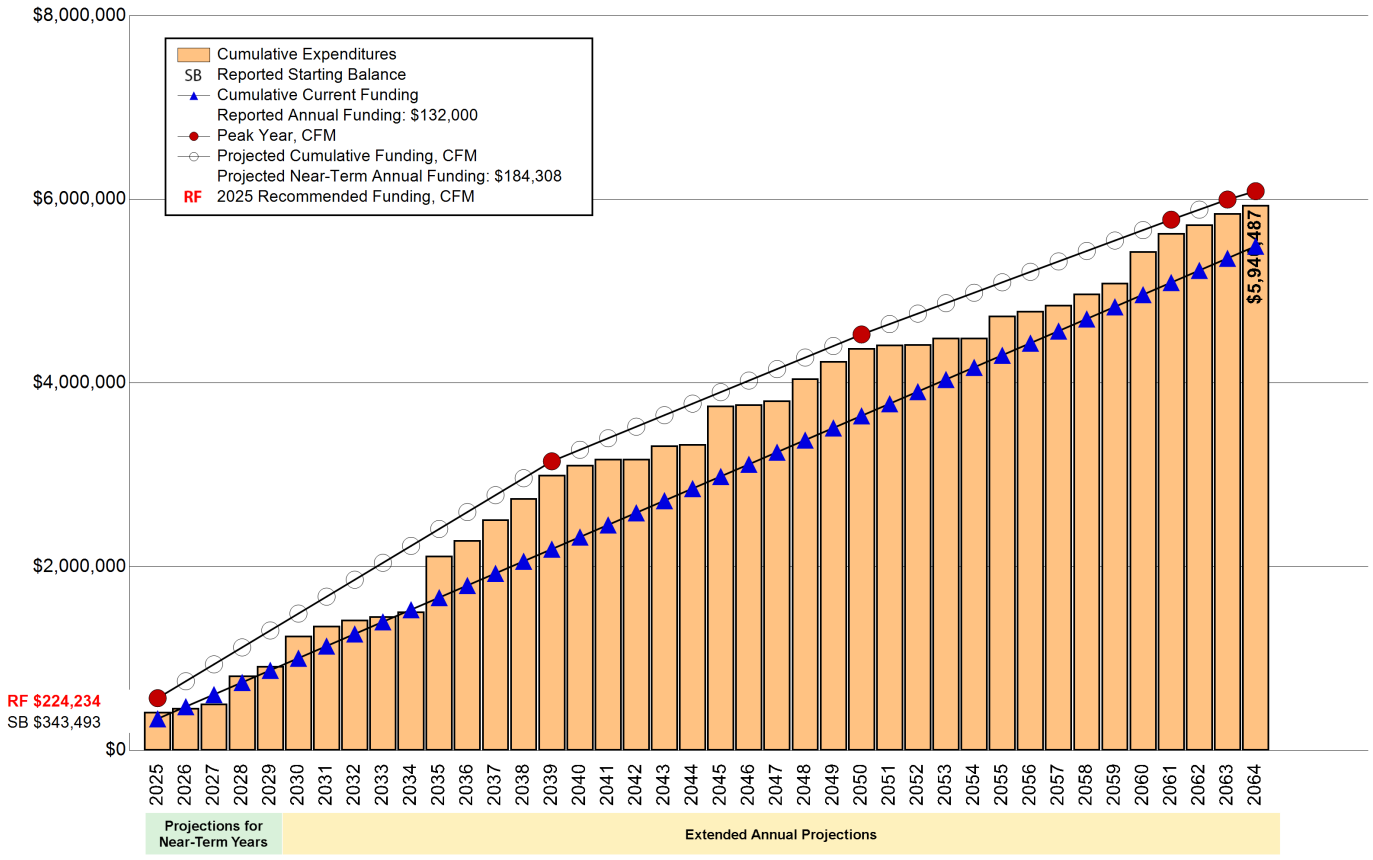
The Charlestowne Village - Balcony Scenario Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 83 Projected Replacements identified in the Replacement Reserve Inventory.

$224,234 **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2025**
$113.25 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 A1.5.

Charlestowne Village - Balcony Scenario reports a Starting Balance of $343,493 and Annual Funding totaling $132,000, which is inadequate to fund projected replacements starting in 2025. See Page A1.3 for a more detailed evaluation.

#1 - Cumulative Replacement Reserve Funding and Expenditures Graph



The high initial Recommended Annual Reserve Funding level is the result of a significant number of replacements being scheduled in the early years of the report. This situation may be exacerbated by the low Starting Balance and the lack of adequate funding of the Reserve Fund. We recommend that the Association increase its Reserve Funding level as soon as possible. Given the high rates of inflation in today's construction industry, the longer that the Association delays in adequately funding its Reserves, the harder it will become to make up for the underfunding. Furthermore, delaying this increase will place an unfair financial burden on long-term and future owners, and may adversely affect property values. Please see Table #5 on page A1.4 for a year-by-year breakdown of Recommended Funding and the reduction after Peak Years. Also, see Section C for the Calendar of Annual Projected Replacements.

REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

The Charlestowne Village - Balcony Scenario 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.

2025 **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, 2025.

40 Years **STUDY PERIOD**

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

$343,493 **STARTING BALANCE**

The Association reports Replacement Reserves on Deposit totaling $343,493 at the start of the Study Year.

Level Two **LEVEL OF SERVICE**

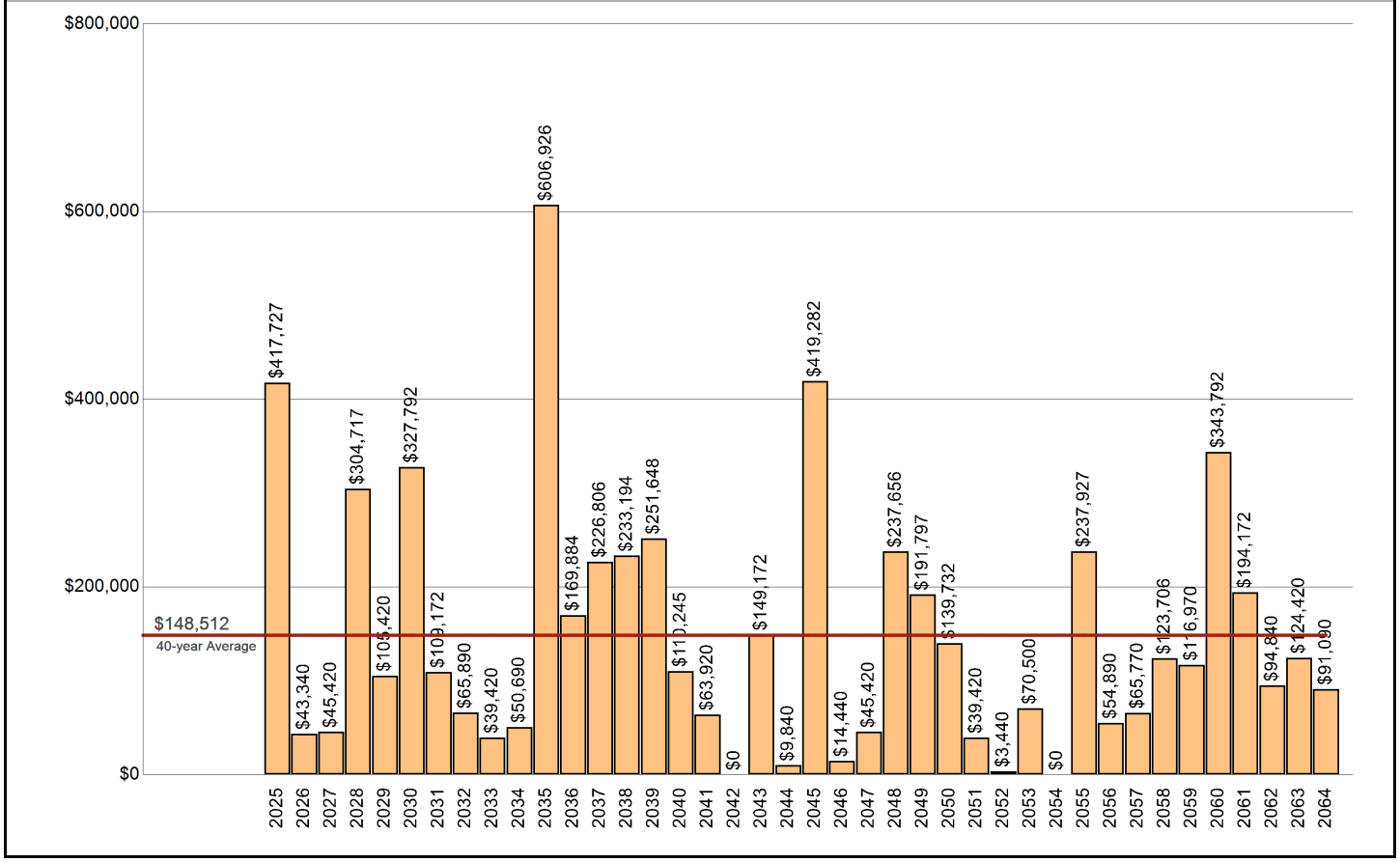
The Replacement Reserve Inventory has been developed in compliance with the National Reserve Study Standards for a Level Two Study, as defined by the Community Associations Institute (CAI).

$5,940,487 **REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS**

The Charlestowne Village - Balcony Scenario Replacement Reserve Inventory identifies 83 items that will require periodic replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be $5,940,487 over the 40-year Study Period. The Projected Replacements are divided into 5 major categories starting on Page B1.3. Pages B1.1-B1.2 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 $148,512. Section C1 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 A1.4 and A1.5. The Projected Replacements listed on Page C1.2 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 A1.5.

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 A1.5.

ANNUAL EXPENDITURES AND CURRENT FUNDING

The annual expenditures that comprise the $5,940,487 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 0 through 39

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Starting Balance	$343,493									
Projected Replacements	($417,727)	($43,340)	($45,420)	($304,717)	($105,420)	($327,792)	($109,172)	($65,890)	($39,420)	($50,690)
Annual Deposit	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000
End of Year Balance	$57,766	$146,426	$233,006	$60,289	$86,869	($108,923)	($86,095)	($19,985)	$72,595	$153,905
Cumulative Expenditures	($417,727)	($461,067)	($506,487)	($811,204)	($916,624)	($1,244,416)	($1,353,588)	($1,419,478)	($1,458,898)	($1,509,588)
Cumulative Receipts	$475,493	$607,493	$739,493	$871,493	$1,003,493	$1,135,493	$1,267,493	$1,399,493	$1,531,493	$1,663,493
Year	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**
Projected Replacements	($606,926)	($169,884)	($226,806)	($233,194)	($251,648)	($110,245)	($63,920)		($149,172)	($9,840)
Annual Deposit	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000
End of Year Balance	($321,021)	($358,905)	($453,711)	($554,905)	($674,553)	($652,798)	($584,718)	($452,718)	($469,890)	($347,730)
Cumulative Expenditures	($2,116,514)	($2,286,398)	($2,513,204)	($2,746,398)	($2,998,046)	($3,108,291)	($3,172,211)	($3,172,211)	($3,321,383)	($3,331,223)
Cumulative Receipts	$1,795,493	$1,927,493	$2,059,493	$2,191,493	$2,323,493	$2,455,493	$2,587,493	$2,719,493	$2,851,493	$2,983,493
Year	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**
Projected Replacements	($419,282)	($14,440)	($45,420)	($237,656)	($191,797)	($139,732)	($39,420)	($3,440)	($70,500)	
Annual Deposit	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000
End of Year Balance	($635,012)	($517,452)	($430,872)	($536,528)	($596,325)	($604,057)	($511,477)	($382,917)	($321,417)	($189,417)
Cumulative Expenditures	($3,750,505)	($3,764,945)	($3,810,365)	($4,048,021)	($4,239,818)	($4,379,550)	($4,418,970)	($4,422,410)	($4,492,910)	($4,492,910)
Cumulative Receipts	$3,115,493	$3,247,493	$3,379,493	$3,511,493	$3,643,493	$3,775,493	$3,907,493	$4,039,493	$4,171,493	$4,303,493
Year	**2055**	**2056**	**2057**	**2058**	**2059**	**2060**	**2061**	**2062**	**2063**	**2064**
Projected Replacements	($237,927)	($54,890)	($65,770)	($123,706)	($116,970)	($343,792)	($194,172)	($94,840)	($124,420)	($91,090)
Annual Deposit	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000	$132,000
End of Year Balance	($295,344)	($218,234)	($152,004)	($143,710)	($128,680)	($340,472)	($402,644)	($365,484)	($357,904)	($316,994)
Cumulative Expenditures	($4,730,837)	($4,785,727)	($4,851,497)	($4,975,203)	($5,092,173)	($5,435,965)	($5,630,137)	($5,724,977)	($5,849,397)	($5,940,487)
Cumulative Receipts	$4,435,493	$4,567,493	$4,699,493	$4,831,493	$4,963,493	$5,095,493	$5,227,493	$5,359,493	$5,491,493	$5,623,493

EVALUATION OF CURRENT FUNDING

The evaluation of Current Funding (Starting Balance of $343,493 & annual funding of $132,000), is done in today's dollars with no adjustments for inflation or interest earned on Replacement Reserves. The evaluation assumes Replacement Reserves will only be used for the 83 Projected Replacements identified in the Replacement Reserve Inventory and that the Association will continue Annual Funding of $132,000 throughout the 40-year Study Period.

Annual Funding of $132,000 is approximately 59 percent of the $224,234 recommended Annual Funding calculated by the Cash Flow Method for 2025, the Study Year.

See the Executive Summary for the Current Funding Statement.

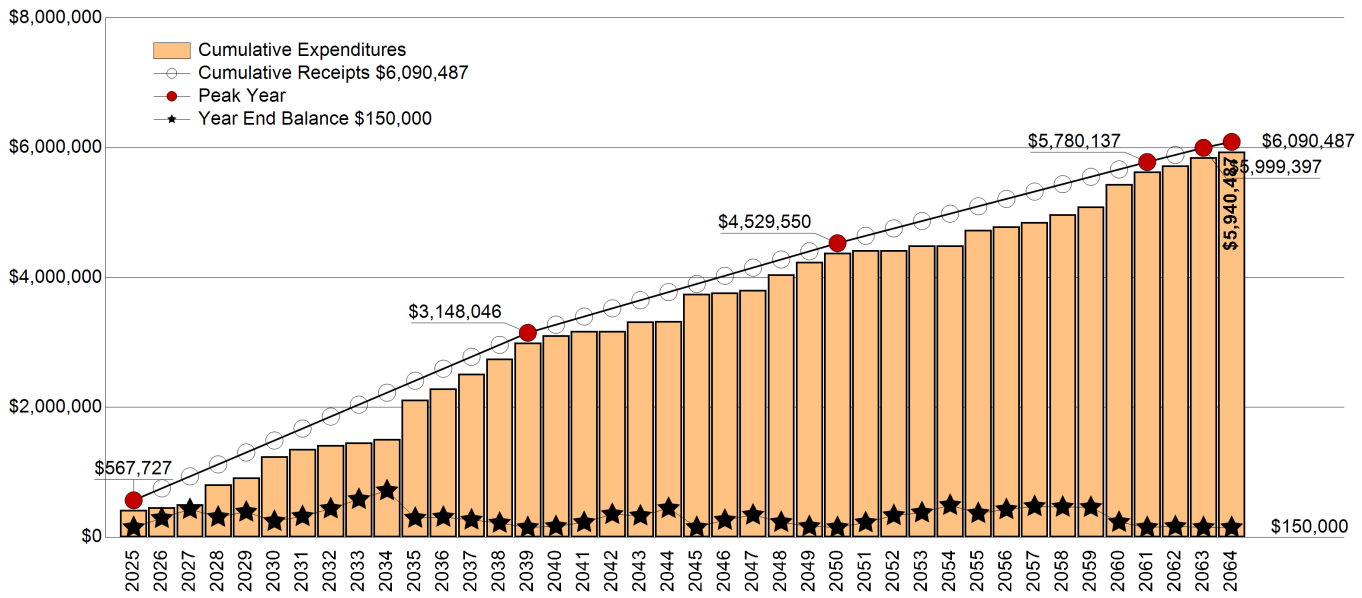
CASH FLOW METHOD FUNDING

$224,234 **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2025**
$113.25 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 2025 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of $417,727 of replacements from 2025 to 2025. Recommended funding is projected to decline from $224,234 in 2025 to $184,308 in 2026. Peak Years are identified in Chart 4 and Table 5.
- **Threshold (Minimum Balance).** The calculations assume a Minimum Balance of $150,000 will always be held in reserve, which is calculated by rounding the 12-month 40-year average annual expenditure of $148,512 as shown on Graph #2.
- **Cash Flow Method Study Period.** Cash Flow Method calculates funding for $5,940,487 of expenditures over the 40-year Study Period. It does not include funding for any projects beyond 2064 and in 2064, the end of year balance will always be the Minimum Balance.

#4 - Cash Flow Method - Graph of Cumulative Receipts and Expenditures - Years 0 through 39



#5 - Cash Flow Method - Table of Receipts & Expenditures - Years 0 through 39

Year	1st Peak - 2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Starting Balance	$343,493									
Projected Replacements	($417,727)	($43,340)	($45,420)	($304,717)	($105,420)	($327,792)	($109,172)	($65,890)	($39,420)	($50,690)
Annual Deposit	$224,234	$184,308	$184,308	$184,308	$184,308	$184,308	$184,308	$184,308	$184,308	$184,308
End of Year Balance	$150,000	$290,968	$429,857	$309,449	$388,337	$244,854	$319,990	$438,409	$583,297	$716,916
Cumulative Expenditures	($417,727)	($461,067)	($506,487)	($811,204)	($916,624)	($1,244,416)	($1,353,588)	($1,419,478)	($1,458,898)	($1,509,588)
Cumulative Receipts	$567,727	$752,036	$936,344	$1,120,653	$1,304,961	$1,489,270	$1,673,578	$1,857,887	$2,042,195	$2,226,504
Year	**2035**	**2036**	**2037**	**2038**	**2nd Peak - 2039**	**2040**	**2041**	**2042**	**2043**	**2044**
Projected Replacements	($606,926)	($169,884)	($226,806)	($233,194)	($251,648)	($110,245)	($63,920)		($149,172)	($9,840)
Annual Deposit	$184,308	$184,308	$184,308	$184,308	$184,308	$125,591	$125,591	$125,591	$125,591	$125,591
End of Year Balance	$294,298	$308,723	$266,225	$217,340	$150,000	$165,346	$227,018	$352,609	$329,028	$444,779
Cumulative Expenditures	($2,116,514)	($2,286,398)	($2,513,204)	($2,746,398)	($2,998,046)	($3,108,291)	($3,172,211)	($3,172,211)	($3,321,383)	($3,331,223)
Cumulative Receipts	$2,410,812	$2,595,121	$2,779,429	$2,963,738	$3,148,046	$3,273,637	$3,399,229	$3,524,820	$3,650,411	$3,776,002
Year	**2045**	**2046**	**2047**	**2048**	**2049**	**3rd Peak - 2050**	**2051**	**2052**	**2053**	**2054**
Projected Replacements	($419,282)	($14,440)	($45,420)	($237,656)	($191,797)	($139,732)	($39,420)	($3,440)	($70,500)	
Annual Deposit	$125,591	$125,591	$125,591	$125,591	$125,591	$125,591	$113,690	$113,690	$113,690	$113,690
End of Year Balance	$151,088	$262,240	$342,411	$230,347	$164,141	$150,000	$224,270	$334,520	$377,709	$491,399
Cumulative Expenditures	($3,750,505)	($3,764,945)	($3,810,365)	($4,048,021)	($4,239,818)	($4,379,550)	($4,418,970)	($4,422,410)	($4,492,910)	($4,492,910)
Cumulative Receipts	$3,901,594	$4,027,185	$4,152,776	$4,278,367	$4,403,959	$4,529,550	$4,643,240	$4,756,930	$4,870,619	$4,984,309
Year	**2055**	**2056**	**2057**	**2058**	**2059**	**2060**	**4th Peak - 2061**	**2062**	**5th Peak - 2063**	**6th Peak - 2064**
Projected Replacements	($237,927)	($54,890)	($65,770)	($123,706)	($116,970)	($343,792)	($194,172)	($94,840)	($124,420)	($91,090)
Annual Deposit	$113,690	$113,690	$113,690	$113,690	$113,690	$113,690	$113,690	$109,630	$109,630	$91,090
End of Year Balance	$367,162	$425,961	$473,881	$463,865	$460,585	$230,482	$150,000	$164,790	$150,000	$150,000
Cumulative Expenditures	($4,730,837)	($4,785,727)	($4,851,497)	($4,975,203)	($5,092,173)	($5,435,965)	($5,630,137)	($5,724,977)	($5,849,397)	($5,940,487)
Cumulative Receipts	$5,097,999	$5,211,689	$5,325,378	$5,439,068	$5,552,758	$5,666,448	$5,780,137	$5,889,767	$5,999,397	$6,090,487

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.

$224,234 **2025 - CASH FLOW METHOD RECOMMENDED FUNDING**

The 2025 Study Year calculations have been made using current replacement costs

$195,367 **2026 - 6% INFLATION ADJUSTED FUNDING**

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

- Starting Balance totaling $150,000 on May 1, 2026.
- 2026 Non inflation replacement costs listed in Section C, $43,340, will be replaced at approximately $45,940, 6.00% inflation increase to 2025 costs.
- The $195,367 inflation-adjusted funding in 2026 is a 6% increase over the non-inflation-adjusted funding of $184,308.

$207,089 **2027 - 6% INFLATION ADJUSTED FUNDING**

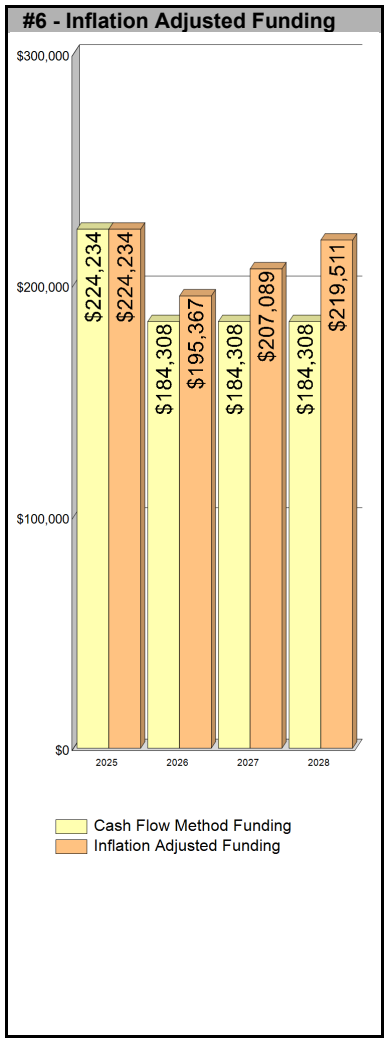
A new analysis calculates the 2027 funding based on three assumptions:

- Starting balance of approximately $341,748 = 2026 Starting Balance $150,000, plus Inflation Adjusted Funding $195,367 for 2026, minus $45,940 2025 Inflation Adjusted Cost.
- 2027 Non inflation replacement costs listed in Section C, $45,420, will be replaced at approximately $50,870, 6.00% inflation increase to 2025 costs.
- The $207,089 inflation-adjusted funding in 2027 is a 6% increase over the non-inflation-adjusted funding of $195,367 for 2026.

$219,511 **2028 - 6% INFLATION ADJUSTED FUNDING**

A new analysis calculates the 2028 funding based on three assumptions:

- Starting balance of approximately $542,827 = 2027 Starting Balance $341,748, plus Inflation Adjusted Funding $207,089 for 2027, minus $50,870 2025 Inflation Adjusted Cost.
- 2028 Non inflation replacement costs listed in Section C, $304,717, will be replaced at approximately $359,566, 6.00% inflation increase to 2025 costs.
- The $219,511 inflation-adjusted funding in 2028 is a 6% increase over the non-inflation-adjusted funding of $207,089 for 2027.



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 2026, 2027 and 2028 inflation-adjusted funding calculations above, the 6.00 percent base rate of inflation used in our calculations should be compared to rates published by the Bureau of Labor Statistics. If there is a significant discrepancy (over 1 percentage point), contact Miller+Dodson Associates prior to using the Inflation Adjusted Funding.

Interest on Reserves

The recommended funding calculations do not account for interest earned on Replacement Reserves. In 2025, based on a 1.00 percent interest rate, we estimate the Association may earn $2,467 on an average balance of $246,747, $2,459 on an average balance of $245,874 in 2026, and $4,423 on $442,287 in 2027. The Association may elect to attribute 100 percent of the earned interest to Reserves, resulting in a reduction in the 2025 funding from $224,234 to $221,767 (a 1.10 percent reduction), $237,688 to $235,229 in 2026 (a 1.03 percent reduction), and $251,949 to $247,527 in 2027 (a 1.75 percent reduction).

REPLACEMENT RESERVE STUDY - SUPPLEMENTAL COMMENTS

Maryland's new Reserves and Reserve Study Law, HB-107, is intended to ensure that adequate Reserve Funding is available for capital repair and replacement projects when it is needed. This is done by funding the Reserve Fund annually. The law requires that the Recommended Annual Reserve Funding amount in the most recent Reserve Study be included in the Association's annual budgets. If this is an Association's "initial" (first) professionally conducted Reserve Study, HB-107 gives the Association up to three (3) fiscal years following the fiscal year in which the Reserve Study was completed, to attain the Annual Reserve Funding level recommended in the initial Reserve Study.

SECTION B - REPLACEMENT RESERVE INVENTORY

- **PROJECTED REPLACEMENTS.** Charlestowne Village - Balcony Scenario - Replacement Reserve Inventory identifies 83 items that are Projected Replacements and the periodic replacements of these items are scheduled for funding from Replacement Reserves. The Projected Replacements have an estimated one-time replacement cost of $2,568,378. Cumulative Replacements totaling $5,940,487 are scheduled in the Replacement Reserve Inventory over the 40-year Study Period. Cumulative Replacements include those components that are replaced more than once during the period of the study.

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

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

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

  Value. Items with a replacement cost of less than $1000 and/or a normal economic life of less than 3 years are typically excluded from funding from Replacement Reserves. This exclusion should reflect the Association policy on the administration of Replacement Reserves. If the Association has selected an alternative level, it will be noted in the Replacement Reserve Inventory - General Comments on Page B1.2.

  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 83 items included in the Charlestowne Village - Balcony Scenario Replacement Reserve Inventory are divided into 5 major categories. Each category is printed on a separate page, beginning on page B1.3.

- **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 the Community Associations Institute, which states:

  This study has been performed as a Level 2 Update with Site Visit/On-Site Review as defined by the Community Associations Institute's, National Reserve Study Standards. As such, the component inventory is based on the study that was performed by . 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 83 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 83 Projected Replacements specifically listed in the Replacement Reserve Inventory. The inclusion/exclusion of items from the Replacement Reserve Inventory is discussed on Page B1.1.

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	Entrance monument, repoint masonry	sf	116	$10.00	10	3	$1,160
2	Entrance monument, composite sign	sf	40	$220.00	25	7	$8,800
3	Asphalt pavement, mill and overlay	sf	10,000	$2.45	20	13	$24,500
4	Asphalt pavement, mill and overlay	sf	80,688	$2.45	20	3	$197,686
5	Asphalt pavement, seal coat	sf	90,688	$0.25	5	none	$22,672
6	Asphalt pavement, crack sealing	lf	5,000	$4.00	5	none	$20,000
7	Asphalt speed bump	lf	150	$120.00	5	none	$18,000
8	Parking lot striping	sf	90,688	$0.07	6	none	$6,348
9	Concrete curb and gutter, barrier (6% allowance)	lf	330	$42.00	6	none	$13,860
10	Concrete flatwork (6% allowance)	sf	1,471	$14.00	6	none	$20,594
11	Concrete trash corral pads (6% allowance)	sf	260	$16.00	6	none	$4,160
12	Concrete steps (6% allowance)	ft	90	$175.00	6	none	$15,750
13	Wheel stops, concrete	ea	18	$200.00	20	none	$3,600

Replacement Costs - Page Subtotal $357,130

COMMENTS

- Item #1: Entrance monument, repoint masonry - Segmental block retaining wall at monument sign included under item #12.
- Item #3: Asphalt pavement, mill and overlay - Includes asphalt mill and overlay at areas re-worked in 2020.
- Item #4: Asphalt pavement, mill and overlay - Includes all other asphalt areas excluding areas included in item #3.
- Item #5: Asphalt pavement, seal coat - Includes areas re-sealed in 2020.
- Item #6: Asphalt pavement, crack sealing - Includes crack sealing performed in 2020.
- Item #7: Asphalt speed bumps - Includes speed bumps installed in 2020.
- Item #10: Concrete flatwork (6% allowance) - Concrete Sidewalks, including lead walks to units.
- Item #11: Concrete trash corral pads (6% allowance) - Concrete flatwork at trash areas, and entrance slabs at laundry rooms and storage rooms.

SITE ITEMS
PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
14	Retaining wall, PTL (6% allowance)	sf	120	$45.00	6	1	$5,400
15	Retaining wall, segmental block (reset)	sf	2,082	$15.00	10	3	$31,230
16	Retaining wall, brick, repoint (6% allowance)	sf	370	$12.00	6	1	$4,440
17	Metal railing, steel/wrought iron	lf	1,630	$75.00	50	10	$122,250
18	Fence, vinyl 2-rail and post	ft	110	$25.00	40	3	$2,750
19	Fence, 4' galvanized chain link	ft	193	$22.00	30	3	$4,246
20	Fence, 6' PTL, wood board-on-board	lf	654	$30.00	20	5	$19,620
21	Fence, PTL, wood board at trash enclosures	ea	15	$2,000.00	20	none	$30,000
22	Stormwater management (10% allowance)	ls	1	$27,500.00	10	none	$27,500
23	Security light, building mounted	ea	102	$280.00	15	none	$28,560
24	Flood light, ground mounted	ea	1	$210.00	10	3	$210

Replacement Costs - Page Subtotal $276,206

COMMENTS

- Item #15: Retaining wall, segmental block (reset) - Includes segmental block retaining wall along Lakecrest Drive and at monument sign.
- Item #17: Metal railing, steel/wrought iron - Includes handrails at all stairways as well as guard rails at retaining walls.
- Item #18: Fence, vinyl 2-rail and post - Vinyl fence along Lakecrest Drive and up into parking area at units 7748-7938.
- Item #19: Fence, 4' galvanized chain link - Chain link fence at the south property line at Lakecrest Drive.
- Item #20: Fence, 6' PTL, wood board-on-board - Wood Board fence at southwest property line. The wood board fence at the play area is included under the recreation items.
- Item #22: Stormwater management (10% allowance) - Allowance to address storm water problems in the vicinity of the storage/maintenance building as reported by the Association. Also includes repairs to downspout drainage problems.
- Item #24: Flood light, ground mounted - Ground-mounted light at monument sign.

RECREATION ITEMS
PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
25	Tot lot, border PTL	lf	211	$13.00	15	none	$2,743
26	Tot lot surfacing, wood mulch (3")	sf	1,720	$2.00	3	none	$3,440
27	Wood steps, railroad ties	lf	16	$55.00	15	none	$880
28	Fence, 4' PTL, wood rail and batten	lf	112	$30.00	20	none	$3,360
29	Tot lot, MP structure, 1 platform and 1 slide (small)	ea	2	$20,000.00	15	3	$40,000
30	Tot lot swing, 3 seat	ea	1	$2,800.00	15	5	$2,800
31	Trash can coated metal (32 gallon wood slat)	ea	1	$1,370.00	10	3	$1,370
32	Bench, coated metal with metal supports (7')	ea	1	$1,370.00	15	5	$1,370
33	Picnic table (PTL wood table and bench)	ea	2	$1,200.00	15	none	$2,400
34	Picnic table (metal)	ea	1	$1,200.00	15	5	$1,200
35	Picnic table (PTL wood table & bench, metal	ea	1	$1,200.00	15	5	$1,200

Replacement Costs - Page Subtotal $60,763

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 ($)	NEL	REL	REPLACEMENT COST ($)
36	Roofing, asphalt shingles,includes flashings, drip	sf	17,000	$5.00	25	10	$85,000
37	Roofing, asphalt shingles	sf	17,000	$5.00	25	11	$85,000
38	Roofing, asphalt shingles	sf	17,000	$5.00	25	12	$85,000
39	Roofing, asphalt shingles	sf	17,000	$5.00	25	13	$85,000
40	Roofing, asphalt shingles	sf	17,000	$5.00	25	14	$85,000
41	Roofing, asphalt shingles, maintenance building	sf	530	$5.00	25	14	$2,650
42	Gutter and downspouts, 5" aluminum	lf	1,257	$12.00	30	10	$15,084
43	Gutter and downspouts, 5" aluminum	lf	1,257	$12.00	30	11	$15,084
44	Gutter and downspouts, 5" aluminum	lf	1,257	$12.00	30	12	$15,084
45	Gutter and downspouts, 5" aluminum	lf	1,257	$12.00	30	13	$15,084
46	Gutter and downspouts, 5" aluminum	lf	1,257	$12.00	30	14	$15,084
47	Gutter and downspouts, 5" aluminum, maintenance	lf	72	$12.00	30	14	$864
48	Vinyl Exterior Shutter	pr	70	$165.00	20	15	$11,550
49	Vinyl Exterior Shutter	pr	70	$165.00	20	11	$11,550
50	Vinyl Exterior Shutter	pr	70	$165.00	20	12	$11,550
51	Vinyl Exterior Shutter	pr	70	$165.00	20	13	$11,550
52	Vinyl Exterior Shutter	pr	70	$165.00	20	14	$11,550

Replacement Costs - Page Subtotal $561,684

COMMENTS

- Item #36: Roofing, asphalt shingles,includes flashings, drip edge, ice shield - Asphalt shingle roof for three buildings each year for five years. Includes trash enclosure roof.
- Item #42: Gutter and downspouts, 5" aluminum - Aluminum gutter and downspout for three buildings each year for five years. Assume this work will track with roof replacement.

EXTERIOR ITEMS
PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
53	Window, bay or bow	ea	25	$80.00	40	16	$2,000
54	Masonry (10% repointing allowance)	sf	3,285	$12.00	10	none	$39,420
55	Masonry (10% repointing allowance)	sf	3,285	$12.00	10	2	$39,420
56	Masonry (10% repointing allowance)	sf	3,285	$12.00	10	4	$39,420
57	Masonry (10% repointing allowance)	sf	3,285	$12.00	10	6	$39,420
58	Masonry (10% repointing allowance)	sf	3,285	$12.00	10	8	$39,420
59	Siding and trim, vinyl, standard (including door trim)	sf	720	$9.00	35	5	$6,480
60	Siding and trim, vinyl, standard, maintenance	sf	800	$9.00	35	5	$7,200
61	Soffit and trim, vinyl (allowance)	sf	5,250	$9.00	35	5	$47,250
62	Soffit and trim, vinyl (allowance)	sf	5,250	$9.00	35	7	$47,250
63	Soffit and trim, vinyl (allowance)	sf	5,250	$9.00	35	9	$47,250
64	Soffit and trim, vinyl (allowance)	sf	5,250	$9.00	35	11	$47,250
65	Soffit and trim, vinyl (allowance)	sf	5,250	$9.00	35	13	$47,250
66	Caulking (allowance)	ls	1	$6,000.00	10	none	$6,000
67	Caulking (allowance)	ls	1	$6,000.00	10	1	$6,000
68	Caulking (allowance)	ls	1	$6,000.00	10	2	$6,000
69	Caulking (allowance)	ls	1	$6,000.00	10	3	$6,000
70	Caulking (allowance)	ls	1	$6,000.00	10	4	$6,000

Replacement Costs - Page Subtotal $479,030

COMMENTS

- Item #53: Window, bay or bow - Includes replacement for bay window units only. All other windows are excluded by the Association.
- Item #61: Soffit and trim, vinyl (allowance) - Includes roof soffits and soffits below certain balconies 3 buildings each.

EXTERIOR ITEMS
PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
71	Concrete patio at grade (6% allowance)	sf	400	$14.00	6	none	$5,600
72	Concrete Balcony, cast-in-place concrete	sf	8,800	$20.00	60	10	$176,000
73	Metal railing, steel/wrought iron	lf	1,000	$75.00	50	10	$75,000
74	Structural steel balcony repair (allowance)	ls	1	$5,000.00	10	1	$5,000
75	Privacy screen, PTL	lf	500	$45.00	15	1	$22,500
76	Door, steel, flush (3' X 6'8")	ea	31	$1,600.00	25	none	$49,600

Replacement Costs - Page Subtotal $333,700

COMMENTS

- Item #71: Concrete patio at grade (6% allowance) - Concrete slab-on-grade patios at individual townhouse units.
- Item #72: Concrete Balcony, cast-in-place concrete - Elevated concrete balconies at individual townhouse units. MillerDodson strongly recommends that the Association retain the services of a Structural Engineer to conduct thorough and periodic evaluations of the building structure, the balconies, and any other structural features of the community.
- Item #73: Metal railing, steel/wrought iron - Includes guard rails at elevated balconies.
- Item #75: Privacy screen, PTL - Treated wood privacy screens at certain individual units.
- Item #76: Door, steel, flush (3' X 6'8") - Steel doors and frames to community laundry rooms and storage rooms.

INTERIOR ITEMS
PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
77	Flooring, vinyl tile	sf	6,216	$5.00	14	none	$31,080
78	Ceiling, suspended	sf	6,216	$10.00	20	none	$62,160
79	Interior lighting, general	ea	133	$125.00	21	3	$16,625

Replacement Costs - Page Subtotal $109,865

COMMENTS

- Item #77: Flooring, vinyl tile - Includes vinyl flooring at community laundry rooms and combination laundry room/storage rooms.
- Item #78: Ceiling, suspended - Includes suspended ceilings at community laundry rooms. The combination laundry room storage rooms have gypsum board ceilings which are excluded.
- Item #79: Interior lighting, general - Includes ceiling lighting at community laundry rooms and storage rooms.

BUILDING SYSTEMS
PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
80	Water heater, commercial gas (80 gallon)	ea	15	$12,000.00	15	5	$180,000
81	Electric panels and breakers	ls	1	$150,000.00	50	42	$150,000
82	Domestic water main (10% allowance)	ft	1	$30,000.00	10	4	$30,000
83	Sanitary main (10% allowance)	ls	1	$30,000.00	10	4	$30,000

Replacement Costs - Page Subtotal $390,000

COMMENTS

- Item #80: Water heater, commercial gas (80 gallon) - REL based upon heater replacement 8 years ago according to the Association.

VALUATION EXCLUSIONS
Excluded Items

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
	Mailboxes						EXCLUDED
	Bollard/access control devices						EXCLUDED
	BBQ						EXCLUDED
	Tennis court posts and nets						EXCLUDED
	Fire extinguisher cabinet						EXCLUDED
	Sprinkler head						EXCLUDED
	Emergency lighting, exit light, etc.						EXCLUDED
	Interior doors						EXCLUDED
	Window unit						EXCLUDED
	Electric heaters						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 ($)	NEL	REL	REPLACEMENT COST ($)
	Bridge structure and foundations						EXCLUDED
	Building foundation(s)						EXCLUDED
	Wall, floor, and roof structure						EXCLUDED
	Fire protection/security systems						EXCLUDED
	Electrical wiring						EXCLUDED
	Gas services at common facilities						EXCLUDED
	Trash chute						EXCLUDED
	Stainless steel pool fixtures						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
	Driveway on an individual lot						EXCLUDED
	Apron on an individual lot						EXCLUDED
	Curb & gutter on an individual lot						EXCLUDED
	Dock on an individually lot						EXCLUDED
	Unit doors						EXCLUDED
	Unit skylights						EXCLUDED
	Unit mailbox						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 ($)	NEL	REL	REPLACEMENT COST ($)
	Electric transformers						EXCLUDED
	Cable TV systems and structures						EXCLUDED
	Telephone cables and structures						EXCLUDED
	Gas mains and meters						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 ($)	NEL	REL	REPLACEMENT COST ($)
	Landscaping and site grading						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, lighting						EXCLUDED
	Government, stormwater mgmt.						EXCLUDED
	Government, ponds						EXCLUDED
	Government, mailboxes						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.

IRRIGATION SYSTEM EXCLUSIONS

Excluded Items

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
	Subsurface irrigation pipe						EXCLUDED
	Subsurface irrigation valve						EXCLUDED
	Subsurface irrigation control wiring						EXCLUDED
	Irrigation control system						EXCLUDED
	Irrigation system electrical service						EXCLUDED
	Irrigation system enclosures						EXCLUDED

IRRIGATION SYSTEM EXCLUSIONS

Comments

- Irrigation System Exclusions. We have assumed that the maintenance, repair, and periodic replacement of the components of the extensive irrigation systems at the property will not be funded from Replacement Reserves. These systems should be inspected each spring when the systems are brought online and again each fall when they are winterized. Repair(s) and or replacement(s) should be made in conjunction with these semiannual inspections.

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SECTION C - CALENDAR OF PROJECTED ANNUAL REPLACEMENTS

GENERAL STATEMENT. The 83 Projected Replacements in the Charlestowne Village - Balcony Scenario Replacement Reserve Inventory whose replacement is scheduled to be funded from Replacement Reserves are broken down on a year-by-year basis, beginning on Page C1.2.

REPLACEMENT RESERVE ANALYSIS AND INVENTORY POLICIES, PROCEDURES, AND ADMINISTRATION

- **REVIEW OF THE REPLACEMENT RESERVE STUDY.** For this study to be effective, it should be reviewed by the Board of Directors, those responsible for the management of the items included in the Replacement Reserve Inventory, and the accounting professionals employed by the Association.
- **REVISIONS.** Revisions will be made to the Replacement Reserve Analysis and Replacement Reserve Inventory in accordance with the written instructions of the Board of Directors. No additional charge is incurred for the first revision if requested in writing within three months of the date of the Replacement Reserve Study. It is our policy to provide revisions in electronic (Adobe PDF) format only. We acknowledge that there are instances in which multiple revisions are necessary. However, unnecessary multiple revisions drain our time and manpower resources. Therefore, MillerDodson will exercise its sole discretion as to whether additional charges are incurred.
- **TAX CODE**. The United States Tax Code grants favorable tax status to a common interest development (CID) meeting certain guidelines for their Replacement Reserve. If a CID files their taxes as a 'Corporation' on Form 1120 (IRC Section 277), these guidelines typically require maintenance activities, partial replacements, minor replacements, capital improvements, and one-time-only replacements to be excluded from Reserves. A CID cannot co-mingle planning for maintenance activities with capital replacement activities in the Reserves (Revenue Ruling 75-370). Funds for maintenance activities and capital replacement activities must be held in separate accounts. If a CID files taxes as an "Exempt Homeowners Association" using Form 1120H (IRC Section 528), the CID does not have to segregate these activities. However, because the CID may elect to change their method of filing from year to year within the Study Period, we advise using the more restrictive approach. We further recommend that the CID consult with their Accountant and consider creating separate and independent accounts and reserves for large maintenance items, such as painting.
- **CONFLICT OF INTEREST.** Neither MillerDodson Associates nor the Reserve Analyst has any prior or existing relationship with this Association which would represent a real or perceived conflict of interest.
- **RELIANCE ON DATA PROVIDED BY THE CLIENT.** Information provided by an official representative of the Association regarding financial, physical conditions, quality, or historical issues is deemed reliable.
- **INTENT.** This Replacement Reserve Study is a reflection of the information provided by the Association and the visual evaluations of the Analyst. It has been prepared for the sole use of the Association and is not for the purpose of performing an audit, quality/forensic analyses, or background checks of historical records.
- **PREVIOUS REPLACEMENTS.** Information provided to MillerDodson Associates regarding prior replacements is considered to be accurate and reliable. Our visual evaluation is not a project audit or quality inspection.
- **EXPERIENCE WITH FUTURE REPLACEMENTS.** The Calendar of Annual Projected Replacements, lists replacements we have projected to occur over the Study Period and begins on Page C2. Actual experience in replacing the items may differ significantly from the cost estimates and time frames shown because of conditions beyond our control. These differences may be caused by maintenance practices, inflation, variations in pricing and market conditions, future technological developments, regulatory actions, acts of God, and luck. Some items may function normally during our visual evaluation and then fail without notice.

PROJECTED REPLACEMENTS

Item	2025 - Study Year	$
5	Asphalt pavement, seal coat	$22,672
6	Asphalt pavement, crack sealing	$20,000
7	Asphalt speed bump	$18,000
8	Parking lot striping	$6,348
9	Concrete curb and gutter, barrier (6% allowance)	$13,860
10	Concrete flatwork (6% allowance)	$20,594
11	Concrete trash corral pads (6% allowance)	$4,160
12	Concrete steps (6% allowance)	$15,750
13	Wheel stops, concrete	$3,600
21	Fence, PTL, wood board at trash enclosures	$30,000
22	Stormwater management (10% allowance)	$27,500
23	Security light, building mounted	$28,560
25	Tot lot, border PTL	$2,743
26	Tot lot surfacing, wood mulch (3")	$3,440
27	Wood steps, railroad ties	$880
28	Fence, 4' PTL, wood rail and batten	$3,360
33	Picnic table (PTL wood table and bench)	$2,400
54	Masonry (10% repointing allowance)	$39,420
66	Caulking (allowance)	$6,000
71	Concrete patio at grade (6% allowance)	$5,600
76	Door, steel, flush (3' X 6'8")	$49,600
77	Flooring, vinyl tile	$31,080
78	Ceiling, suspended	$62,160
	Total Scheduled Replacements	$417,727

Item	2026 - YEAR 1	$
14	Retaining wall, PTL (6% allowance)	$5,400
16	Retaining wall, brick, repoint (6% allowance)	$4,440
67	Caulking (allowance)	$6,000
74	Structural steel balcony repair (allowance)	$5,000
75	Privacy screen, PTL	$22,500
	Total Scheduled Replacements	$43,340

Item	2027 - YEAR 2	$
55	Masonry (10% repointing allowance)	$39,420
68	Caulking (allowance)	$6,000
	Total Scheduled Replacements	$45,420

Item	2028 - YEAR 3	$
1	Entrance monument, repoint masonry	$1,160
4	Asphalt pavement, mill and overlay	$197,686
15	Retaining wall, segmental block (reset)	$31,230
18	Fence, vinyl 2-rail and post	$2,750
19	Fence, 4' galvanized chain link	$4,246
24	Flood light, ground mounted	$210
26	Tot lot surfacing, wood mulch (3")	$3,440
29	Tot lot, MP structure, 1 platform and 1 slide (small)	$40,000
31	Trash can coated metal (32 gallon wood slat)	$1,370
69	Caulking (allowance)	$6,000
79	Interior lighting, general	$16,625
	Total Scheduled Replacements	$304,717

PROJECTED REPLACEMENTS

Item	2029 - YEAR 4	$
56	Masonry (10% repointing allowance)	$39,420
70	Caulking (allowance)	$6,000
82	Domestic water main (10% allowance)	$30,000
83	Sanitary main (10% allowance)	$30,000
	Total Scheduled Replacements	$105,420

Item	2030 - YEAR 5	$
5	Asphalt pavement, seal coat	$22,672
6	Asphalt pavement, crack sealing	$20,000
7	Asphalt speed bump	$18,000
20	Fence, 6' PTL, wood board-on-board	$19,620
30	Tot lot swing, 3 seat	$2,800
32	Bench, coated metal with metal supports (7')	$1,370
34	Picnic table (metal)	$1,200
35	Picnic table (PTL wood table & bench, metal supports)	$1,200
59	Siding and trim, vinyl, standard (including door trim)	$6,480
60	Siding and trim, vinyl, standard, maintenance building	$7,200
61	Soffit and trim, vinyl (allowance)	$47,250
80	Water heater, commercial gas (80 gallon)	$180,000
	Total Scheduled Replacements	$327,792

Item	2031 - YEAR 6	$
8	Parking lot striping	$6,348
9	Concrete curb and gutter, barrier (6% allowance)	$13,860
10	Concrete flatwork (6% allowance)	$20,594
11	Concrete trash corral pads (6% allowance)	$4,160
12	Concrete steps (6% allowance)	$15,750
26	Tot lot surfacing, wood mulch (3")	$3,440
57	Masonry (10% repointing allowance)	$39,420
71	Concrete patio at grade (6% allowance)	$5,600
	Total Scheduled Replacements	$109,172

Item	2032 - YEAR 7	$
2	Entrance monument, composite sign	$8,800
14	Retaining wall, PTL (6% allowance)	$5,400
16	Retaining wall, brick, repoint (6% allowance)	$4,440
62	Soffit and trim, vinyl (allowance)	$47,250
	Total Scheduled Replacements	$65,890

PROJECTED REPLACEMENTS

Item	2033 - YEAR 8	$
58	Masonry (10% repointing allowance)	$39,420
	Total Scheduled Replacements	$39,420

Item	2034 - YEAR 9	$
26	Tot lot surfacing, wood mulch (3")	$3,440
63	Soffit and trim, vinyl (allowance)	$47,250
	Total Scheduled Replacements	$50,690

Item	2035 - YEAR 10	$
5	Asphalt pavement, seal coat	$22,672
6	Asphalt pavement, crack sealing	$20,000
7	Asphalt speed bump	$18,000
17	Metal railing, steel/wrought iron	$122,250
22	Stormwater management (10% allowance)	$27,500
36	Roofing, asphalt shingles,includes flashings, drip edge,	$85,000
42	Gutter and downspouts, 5" aluminum	$15,084
54	Masonry (10% repointing allowance)	$39,420
66	Caulking (allowance)	$6,000
72	Concrete Balcony, cast-in-place concrete	$176,000
73	Metal railing, steel/wrought iron	$75,000
	Total Scheduled Replacements	$606,926

Item	2036 - YEAR 11	$
37	Roofing, asphalt shingles	$85,000
43	Gutter and downspouts, 5" aluminum	$15,084
49	Vinyl Exterior Shutter	$11,550
64	Soffit and trim, vinyl (allowance)	$47,250
67	Caulking (allowance)	$6,000
74	Structural steel balcony repair (allowance)	$5,000
	Total Scheduled Replacements	$169,884

PROJECTED REPLACEMENTS

Item	2037 - YEAR 12	$
8	Parking lot striping	$6,348
9	Concrete curb and gutter, barrier (6% allowance)	$13,860
10	Concrete flatwork (6% allowance)	$20,594
11	Concrete trash corral pads (6% allowance)	$4,160
12	Concrete steps (6% allowance)	$15,750
26	Tot lot surfacing, wood mulch (3")	$3,440
38	Roofing, asphalt shingles	$85,000
44	Gutter and downspouts, 5" aluminum	$15,084
50	Vinyl Exterior Shutter	$11,550
55	Masonry (10% repointing allowance)	$39,420
68	Caulking (allowance)	$6,000
71	Concrete patio at grade (6% allowance)	$5,600
	Total Scheduled Replacements	$226,806

Item	2038 - YEAR 13	$
1	Entrance monument, repoint masonry	$1,160
3	Asphalt pavement, mill and overlay	$24,500
14	Retaining wall, PTL (6% allowance)	$5,400
15	Retaining wall, segmental block (reset)	$31,230
16	Retaining wall, brick, repoint (6% allowance)	$4,440
24	Flood light, ground mounted	$210
31	Trash can coated metal (32 gallon wood slat)	$1,370
39	Roofing, asphalt shingles	$85,000
45	Gutter and downspouts, 5" aluminum	$15,084
51	Vinyl Exterior Shutter	$11,550
65	Soffit and trim, vinyl (allowance)	$47,250
69	Caulking (allowance)	$6,000
	Total Scheduled Replacements	$233,194

Item	2039 - YEAR 14	$
40	Roofing, asphalt shingles	$85,000
41	Roofing, asphalt shingles, maintenance building	$2,650
46	Gutter and downspouts, 5" aluminum	$15,084
47	Gutter and downspouts, 5" aluminum, maintenance	$864
52	Vinyl Exterior Shutter	$11,550
56	Masonry (10% repointing allowance)	$39,420
70	Caulking (allowance)	$6,000
77	Flooring, vinyl tile	$31,080
82	Domestic water main (10% allowance)	$30,000
83	Sanitary main (10% allowance)	$30,000
	Total Scheduled Replacements	$251,648

Item	2040 - YEAR 15	$
5	Asphalt pavement, seal coat	$22,672
6	Asphalt pavement, crack sealing	$20,000
7	Asphalt speed bump	$18,000
23	Security light, building mounted	$28,560
25	Tot lot, border PTL	$2,743
26	Tot lot surfacing, wood mulch (3")	$3,440
27	Wood steps, railroad ties	$880
33	Picnic table (PTL wood table and bench)	$2,400
48	Vinyl Exterior Shutter	$11,550
	Total Scheduled Replacements	$110,245

PROJECTED REPLACEMENTS

Item	2041 - YEAR 16	$
53	Window, bay or bow	$2,000
57	Masonry (10% repointing allowance)	$39,420
75	Privacy screen, PTL	$22,500
	Total Scheduled Replacements	$63,920

Item	2042 - YEAR 17	$
	No Scheduled Replacements	

Item	2043 - YEAR 18	$
8	Parking lot striping	$6,348
9	Concrete curb and gutter, barrier (6% allowance)	$13,860
10	Concrete flatwork (6% allowance)	$20,594
11	Concrete trash corral pads (6% allowance)	$4,160
12	Concrete steps (6% allowance)	$15,750
26	Tot lot surfacing, wood mulch (3")	$3,440
29	Tot lot, MP structure, 1 platform and 1 slide (small)	$40,000
58	Masonry (10% repointing allowance)	$39,420
71	Concrete patio at grade (6% allowance)	$5,600
	Total Scheduled Replacements	$149,172

Item	2044 - YEAR 19	$
14	Retaining wall, PTL (6% allowance)	$5,400
16	Retaining wall, brick, repoint (6% allowance)	$4,440
	Total Scheduled Replacements	$9,840

PROJECTED REPLACEMENTS

Item	2045 - YEAR 20	$
5	Asphalt pavement, seal coat	$22,672
6	Asphalt pavement, crack sealing	$20,000
7	Asphalt speed bump	$18,000
13	Wheel stops, concrete	$3,600
21	Fence, PTL, wood board at trash enclosures	$30,000
22	Stormwater management (10% allowance)	$27,500
28	Fence, 4' PTL, wood rail and batten	$3,360
30	Tot lot swing, 3 seat	$2,800
32	Bench, coated metal with metal supports (7')	$1,370
34	Picnic table (metal)	$1,200
35	Picnic table (PTL wood table & bench, metal supports)	$1,200
54	Masonry (10% repointing allowance)	$39,420
66	Caulking (allowance)	$6,000
78	Ceiling, suspended	$62,160
80	Water heater, commercial gas (80 gallon)	$180,000
	Total Scheduled Replacements	$419,282

Item	2046 - YEAR 21	$
26	Tot lot surfacing, wood mulch (3")	$3,440
67	Caulking (allowance)	$6,000
74	Structural steel balcony repair (allowance)	$5,000
	Total Scheduled Replacements	$14,440

Item	2047 - YEAR 22	$
55	Masonry (10% repointing allowance)	$39,420
68	Caulking (allowance)	$6,000
	Total Scheduled Replacements	$45,420

Item	2048 - YEAR 23	$
1	Entrance monument, repoint masonry	$1,160
4	Asphalt pavement, mill and overlay	$197,686
15	Retaining wall, segmental block (reset)	$31,230
24	Flood light, ground mounted	$210
31	Trash can coated metal (32 gallon wood slat)	$1,370
69	Caulking (allowance)	$6,000
	Total Scheduled Replacements	$237,656

PROJECTED REPLACEMENTS

Item	2049 - YEAR 24	$
8	Parking lot striping	$6,348
9	Concrete curb and gutter, barrier (6% allowance)	$13,860
10	Concrete flatwork (6% allowance)	$20,594
11	Concrete trash corral pads (6% allowance)	$4,160
12	Concrete steps (6% allowance)	$15,750
26	Tot lot surfacing, wood mulch (3")	$3,440
56	Masonry (10% repointing allowance)	$39,420
70	Caulking (allowance)	$6,000
71	Concrete patio at grade (6% allowance)	$5,600
79	Interior lighting, general	$16,625
82	Domestic water main (10% allowance)	$30,000
83	Sanitary main (10% allowance)	$30,000
	Total Scheduled Replacements	$191,797

Item	2050 - YEAR 25	$
5	Asphalt pavement, seal coat	$22,672
6	Asphalt pavement, crack sealing	$20,000
7	Asphalt speed bump	$18,000
14	Retaining wall, PTL (6% allowance)	$5,400
16	Retaining wall, brick, repoint (6% allowance)	$4,440
20	Fence, 6' PTL, wood board-on-board	$19,620
76	Door, steel, flush (3' X 6'8")	$49,600
	Total Scheduled Replacements	$139,732

Item	2051 - YEAR 26	$
57	Masonry (10% repointing allowance)	$39,420
	Total Scheduled Replacements	$39,420

Item	2052 - YEAR 27	$
26	Tot lot surfacing, wood mulch (3")	$3,440
	Total Scheduled Replacements	$3,440

PROJECTED REPLACEMENTS

Item	2053 - YEAR 28	$
58	Masonry (10% repointing allowance)	$39,420
77	Flooring, vinyl tile	$31,080
	Total Scheduled Replacements	$70,500

Item	2054 - YEAR 29	$
	No Scheduled Replacements	

Item	2055 - YEAR 30	$
5	Asphalt pavement, seal coat	$22,672
6	Asphalt pavement, crack sealing	$20,000
7	Asphalt speed bump	$18,000
8	Parking lot striping	$6,348
9	Concrete curb and gutter, barrier (6% allowance)	$13,860
10	Concrete flatwork (6% allowance)	$20,594
11	Concrete trash corral pads (6% allowance)	$4,160
12	Concrete steps (6% allowance)	$15,750
22	Stormwater management (10% allowance)	$27,500
23	Security light, building mounted	$28,560
25	Tot lot, border PTL	$2,743
26	Tot lot surfacing, wood mulch (3")	$3,440
27	Wood steps, railroad ties	$880
33	Picnic table (PTL wood table and bench)	$2,400
54	Masonry (10% repointing allowance)	$39,420
66	Caulking (allowance)	$6,000
71	Concrete patio at grade (6% allowance)	$5,600
	Total Scheduled Replacements	$237,927

Item	2056 - YEAR 31	$
14	Retaining wall, PTL (6% allowance)	$5,400
16	Retaining wall, brick, repoint (6% allowance)	$4,440
49	Vinyl Exterior Shutter	$11,550
67	Caulking (allowance)	$6,000
74	Structural steel balcony repair (allowance)	$5,000
75	Privacy screen, PTL	$22,500
	Total Scheduled Replacements	$54,890

PROJECTED REPLACEMENTS

Item	2057 - YEAR 32	$
2	Entrance monument, composite sign	$8,800
50	Vinyl Exterior Shutter	$11,550
55	Masonry (10% repointing allowance)	$39,420
68	Caulking (allowance)	$6,000
	Total Scheduled Replacements	$65,770

Item	2058 - YEAR 33	$
1	Entrance monument, repoint masonry	$1,160
3	Asphalt pavement, mill and overlay	$24,500
15	Retaining wall, segmental block (reset)	$31,230
19	Fence, 4' galvanized chain link	$4,246
24	Flood light, ground mounted	$210
26	Tot lot surfacing, wood mulch (3")	$3,440
29	Tot lot, MP structure, 1 platform and 1 slide (small)	$40,000
31	Trash can coated metal (32 gallon wood slat)	$1,370
51	Vinyl Exterior Shutter	$11,550
69	Caulking (allowance)	$6,000
	Total Scheduled Replacements	$123,706

Item	2059 - YEAR 34	$
52	Vinyl Exterior Shutter	$11,550
56	Masonry (10% repointing allowance)	$39,420
70	Caulking (allowance)	$6,000
82	Domestic water main (10% allowance)	$30,000
83	Sanitary main (10% allowance)	$30,000
	Total Scheduled Replacements	$116,970

Item	2060 - YEAR 35	$
5	Asphalt pavement, seal coat	$22,672
6	Asphalt pavement, crack sealing	$20,000
7	Asphalt speed bump	$18,000
30	Tot lot swing, 3 seat	$2,800
32	Bench, coated metal with metal supports (7')	$1,370
34	Picnic table (metal)	$1,200
35	Picnic table (PTL wood table & bench, metal supports)	$1,200
36	Roofing, asphalt shingles,includes flashings, drip edge,	$85,000
48	Vinyl Exterior Shutter	$11,550
80	Water heater, commercial gas (80 gallon)	$180,000
	Total Scheduled Replacements	$343,792

PROJECTED REPLACEMENTS

Item	2061 - YEAR 36	$
8	Parking lot striping	$6,348
9	Concrete curb and gutter, barrier (6% allowance)	$13,860
10	Concrete flatwork (6% allowance)	$20,594
11	Concrete trash corral pads (6% allowance)	$4,160
12	Concrete steps (6% allowance)	$15,750
26	Tot lot surfacing, wood mulch (3")	$3,440
37	Roofing, asphalt shingles	$85,000
57	Masonry (10% repointing allowance)	$39,420
71	Concrete patio at grade (6% allowance)	$5,600
Total Scheduled Replacements		$194,172

Item	2062 - YEAR 37	$
14	Retaining wall, PTL (6% allowance)	$5,400
16	Retaining wall, brick, repoint (6% allowance)	$4,440
38	Roofing, asphalt shingles	$85,000
Total Scheduled Replacements		$94,840

Item	2063 - YEAR 38	$
39	Roofing, asphalt shingles	$85,000
58	Masonry (10% repointing allowance)	$39,420
Total Scheduled Replacements		$124,420

Item	2064 - YEAR 39	$
26	Tot lot surfacing, wood mulch (3")	$3,440
40	Roofing, asphalt shingles	$85,000
41	Roofing, asphalt shingles, maintenance building	$2,650
Total Scheduled Replacements		$91,090

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1. COMMON INTEREST DEVELOPMENTS - AN OVERVIEW

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

The growth of Community Associations has been explosive. In 1965, there were only approximately 500 Community Associations in the United States. According to the 1990 U.S. Census, there were roughly 130,000 Community Associations. The Community Associations Institute (CAI), a national trade association, estimated in 2020 that there were more than 350,000 communities with over 75 million residents.

The shift of responsibility for billions of dollars of community facilities and infrastructure from the local government and private sector to Community Associations has generated new and unanticipated issues. Although Community Associations have succeeded in solving many short-term issues, many Associations still fail to properly plan for the significant expenses of replacing community facilities and infrastructure components. When inadequate Replacement Reserve funding results in less than timely replacements of failing components, homeowners are invariably exposed to the burden of special assessments, major increases in Association fees, and often a decline in property values.

2. REPLACEMENT RESERVE STUDY

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

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

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

Section B Replacement Reserve Inventory. The Replacement Reserve Inventory lists the commonly owned components within the community that require periodic replacement using funding from Replacement Reserves. Replacement Reserve Inventory includes estimates of the Normal Economic Life (NEL) and the Remaining Economic Life (REL) for those components whose replacement is scheduled for funding from Replacement Reserves.

The Replacement Reserve Inventory also provides information about those components that are excluded from the Replacement Reserve Inventory and whose replacement is not scheduled for funding from Replacement Reserves.

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

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

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

3. METHODS OF ANALYSIS

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

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

4. REPLACEMENT RESERVE STUDY DATA

Identification of Reserve Components. The Reserve Analyst has only two methods of identifying Reserve Components; (1) information provided by the Association and (2) observations made at the site. The Reserve Analyst must be provided with all available information detailing the components owned by the Association. It is our policy to request such information prior to bidding on a project and to meet with the parties responsible for maintaining the community after acceptance of our proposal. Upon submission of the Initial Study, the Study should be reviewed by the Board of Directors and the individuals responsible for maintaining the community. We depend upon the Association for correct information, documentation, and drawings. We also look to the Association representative to help us fashion the Reserve Study so that it reflects what the community hopes to accomplish in the coming years.

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

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

5. DEFINITIONS

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

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

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

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

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

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

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

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

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

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

Number of Years of the Study. The number of years into the future for which expenditures are projected and reserve levels calculated. This number should be large enough to include the projected replacement of every item on the schedule, at least once. The Reserve Study must cover a minimum of 20 years to comply with the National Reserve Study Standards. However, your study covers a 40-year period.

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

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

Replacement Reserve Study. An analysis of all of the components of the common property of a Community Association for which replacement should be anticipated within the economic life of the property as a whole. The analysis involves estimation for each component of its Estimated Replacement Cost, Normal Economic Life, and Remaining Economic Life. The objective of the study is to calculate a Recommended Annual Funding for the Association's Replacement Reserve Fund.

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

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

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

ea each	**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

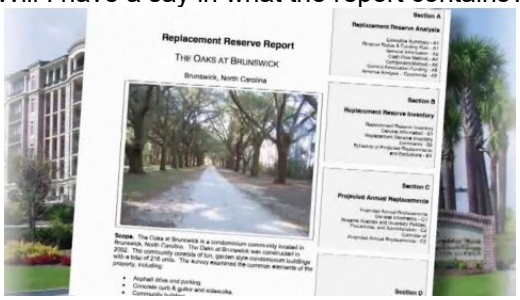
What is my role as a community Board Member?
Will a Reserve Study meet my needs?

https://youtu.be/aARD1B1Oa3o

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

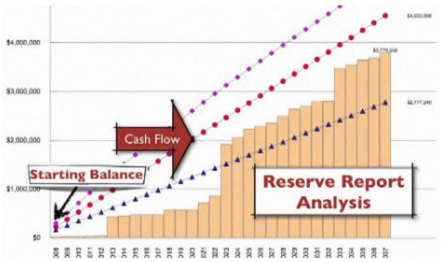
https://youtu.be/diZfM1IyJYU

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?

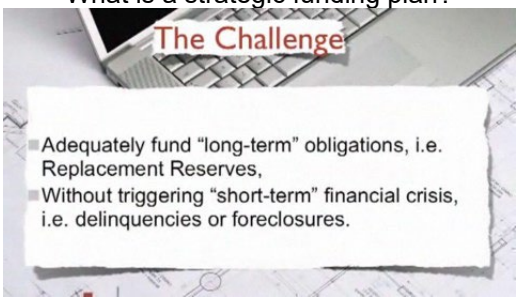


https://youtu.be/SePdwVDvHWI

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?



https://youtu.be/hIxV9X1tIcA