LEVEL 1 REPLACEMENT RESERVE REPORT FY 2021
HAYDENS CROSSING NORTH MASTER ASSOCIATION



LEVEL 1 REPLACEMENT RESERVE REPORT FY 2021
HAYDENS CROSSING NORTH MASTER ASSOCIATION

millerdodson
Capital Reserve Consultants

Community Management by:

CAPITAL PROPERTY SOLUTIONS

Lisa Pearson

5316 Spring River
Dublin, OH, 43016
614.481.4411
lpearson@cpscolumbus.com

Consultant:

millerdodson
Capital Reserve Consultants

2661 Riva Road, Suite 1023
Annapolis, MD 21401
410.268.0479
800.850.2835

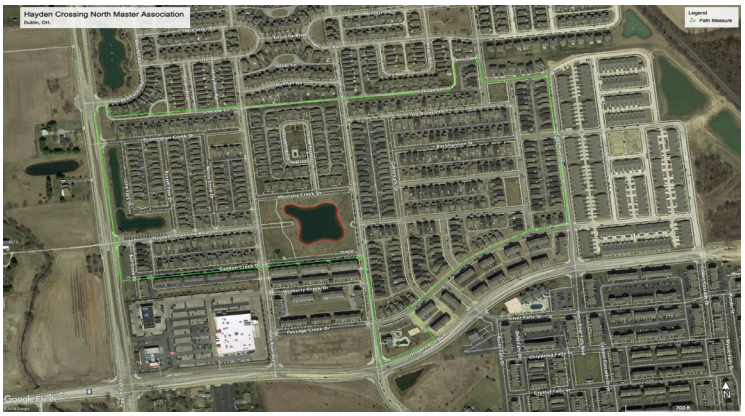
MillerDodson.com

INTENTIONALLY LEFT BLANK

REPLACEMENT RESERVE REPORT

HAYDENS CROSSING NORTH MASTER ASSOCIATION

DUBLIN, OHIO
November 8, 2019
Revised December 14, 2020
Revised March 23, 2021



Description. Haydens Crossing North Master Association is a Master Association located in Dublin, Ohio. Constructed between 2005 and 2017, the community consists of 700 Single-Family Homes. The survey examined the common elements of the property, including:

- Entry Monument, Signage, Some Roadways, Parking Areas, and Alleyways
- Sidewalks
- Site Lighting and Mailbox Clusters
- Irrigation
- Ponds, Fountains, Pavilion, and Pump House
- Exterior Clubhouse, Main Pool, Tot Lot, and Picnic Areas.
- Interior Clubhouse and Pump House

Level of Service. This study has been performed as a Level 1 Full-Service Reserve Study with Site Visit/On-Site Review as defined by the Community Associations Institute's, National Reserve Study Standards. As such, a complete inventory of components, including their condition and cost for major repair or replacement, was established by the Analyst for the common and limited common elements of this facility based on information provided by the Community Manager and/or Board of Directors, or by those developed from visual assessments, field measurements, takeoffs from to-scale drawings, or review of provided historical data. The analysis, including fund status and funding plan, is developed from the inventory.

Section A

Replacement Reserve Analysis

Executive Summary - A1
General Information - A2
Current Funding - A3
Cash Flow Method Funding - A4
Inflation Adjusted Funding - A5
Comments - A6

Section B

Replacement Reserve Inventory

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

Section C

Projected Annual Replacements

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

Section D

Condition Assessment

Appendix

Component Method - CM1

Overview, Standard Terms, and Definitions

Video Answers to Frequently Asked Questions

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

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

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

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

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

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

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

- Miller+Dodson performed a visual evaluation on November 8, 2019 to determine a remaining useful life and replacement cost for the commonly owned elements of this facility.

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

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

Current Funding. This reserve study has been prepared for Fiscal Year 2021 covering the period from January 1, 2021 to December 31, 2021. The Replacement Reserves on deposit as of January 1, 2021 are reported to be $346,183. The reported current annual funding for reserves is $211,560. This results in a Reserve Fund balance at the start of the fiscal year as follows:

Balance as of 2/29/2020	$241,398
10 Months of Contributions	$176,300
2020 Anticipated Expenses	$-71,515
FY 2021 opening balance	**$346,183**

The balance and contribution figures have been supplied by the managing agent and confirmation or audit of these figures is beyond the scope of the study. For the purposes of this study, it is assumed that the annual contribution will be deposited at the end of each month.

Acknowledgment. Miller+Dodson Associates would like to acknowledge the assistance and input of John Izzo and Charlie Pekunka who provided very helpful insight into the current operations of the property.

Analyst's Credentials. Mr. John R. Stegmiller, who holds a Bachelor's degree in Architecture in the College of Engineering at The Ohio State University. Mr. Stegmiller is a Registered Architect in the State of Ohio. Mr. Stegmiller is the owner of Stegmiller Architects, a design and construction management firm, which was established in Columbus, Ohio in 1939. Mr. Stegmiller is a retired Captain of the United States Naval Civil Engineer Corps, where he served for nearly 30 years both on active and reserve duty. Condition assessments of naval facilities and equipment represented a large part of his naval experience. John is currently a reserve analyst for Miller+Dodson Associates.

Respectfully Submitted,

millerdodson
CAPITAL RESERVE CONSULTANTS

John Stegmiller
John R. Stegmiller, RS

INTENTIONALLY LEFT BLANK

EXECUTIVE SUMMARY

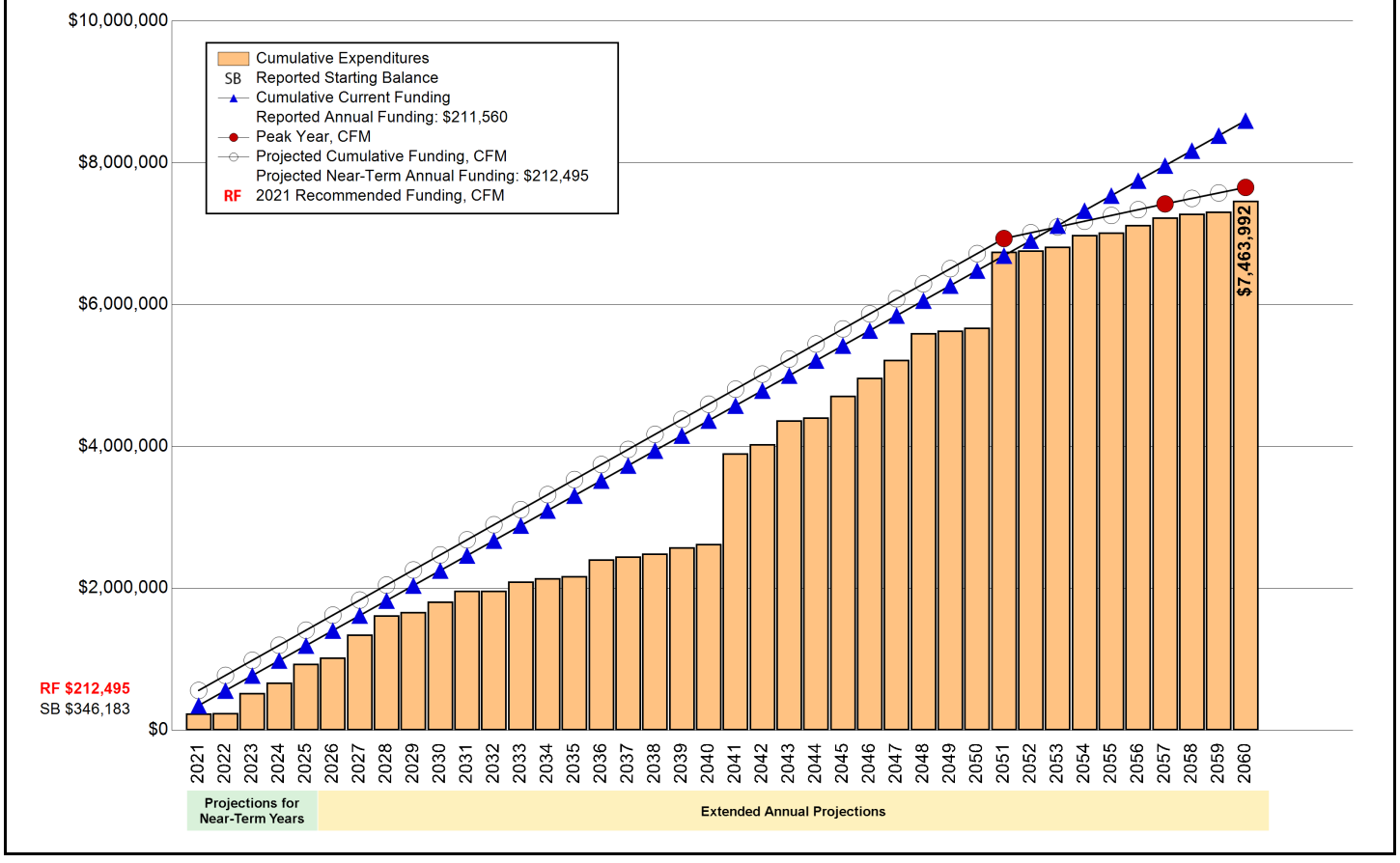
The Haydens Crossing North Master Association Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 103 Projected Replacements identified in the Replacement Reserve Inventory.

$212,495 **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2021**
$25.30 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.

Haydens Crossing North Master Association reports a Starting Balance of $346,183 and Annual Funding totaling $211,560. The reported Current Annual Funding of $211,560 is inadequate to fund projected replacements starting in 2051. See Page A.3 for a more detailed evaluation.

#1 - Cumulative Replacement Reserve Funding and Expenditures Graph



The Current Funding Objective as calculated by the Component Method (Fully Funded) is $417,073 making the reserve account 83.0% funded. See the Appendix for more information on this method.

REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

The Haydens Crossing North Master Association Replacement Reserve Analysis calculations of recommended funding of Replacement Reserves by the Cash Flow Method (CFM) and the evaluation of the Current Funding are based upon the same Study Year, Study Period, Beginning Balance, Replacement Reserve Inventory and Level of Service.

2021 **STUDY YEAR**

The Association reports that their accounting year begins on January 1, and the Study Year, the first year evaluated by the Replacement Reserve Analysis, begins on January 1, 2021.

40 Years **STUDY PERIOD**

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

$346,183 **STARTING BALANCE**

The Association reports Replacement Reserves on Deposit totaling $346,183 at the start of the Study Year.

Level One **LEVEL OF SERVICE**

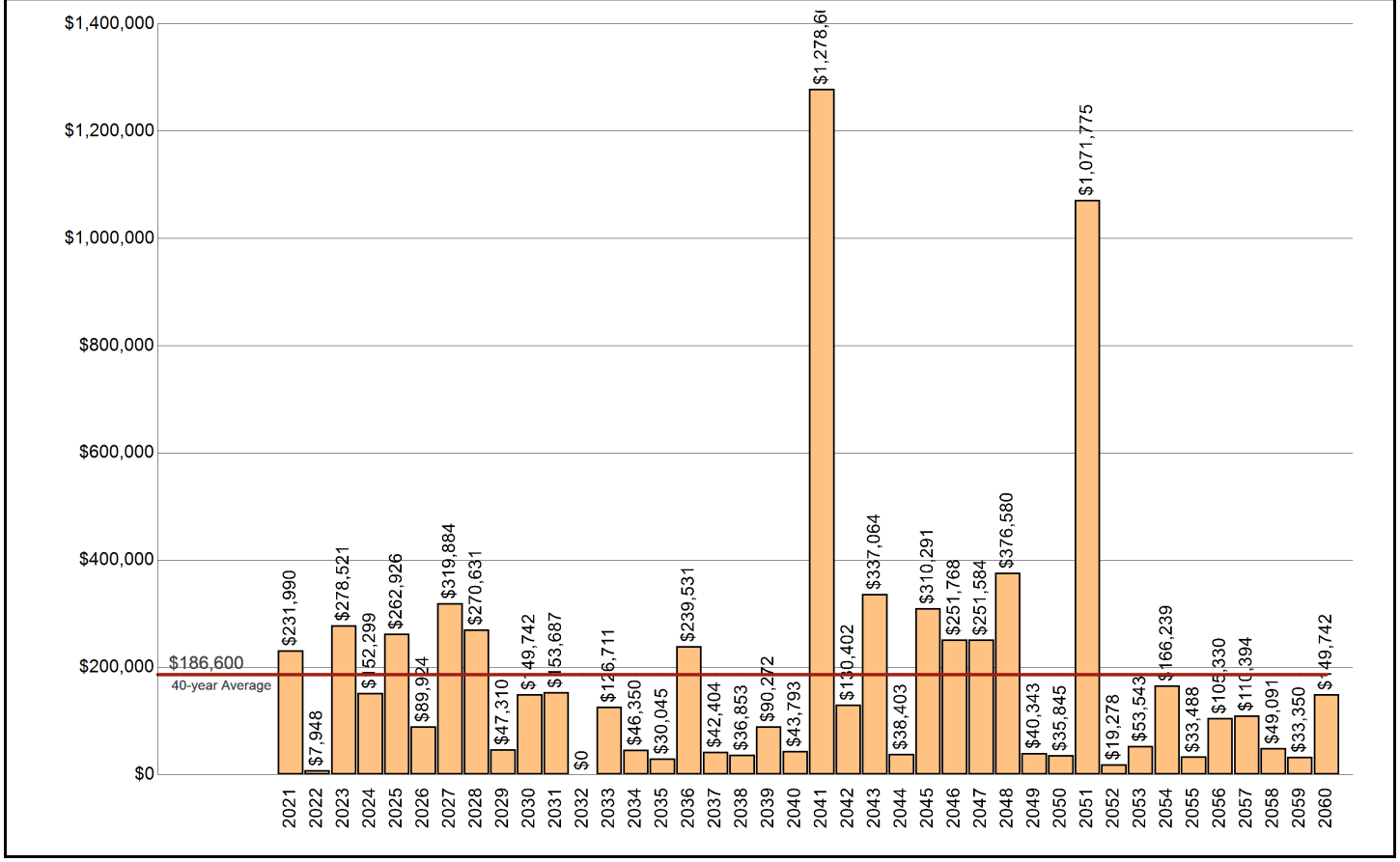
The Replacement Reserve Inventory has been developed in compliance with the National Reserve Study Standards for a Level One Study, as defined by the Community Associations Institute (CAI).

$7,463,992 **REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS**

The Haydens Crossing North Master Association Replacement Reserve Inventory identifies 103 items that will require periodic replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be $7,463,992 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 $186,600. Section C provides a year by year Calendar of these expenditures.



UPDATING

UPDATING OF THE FUNDING PLAN

The Association has a responsibility to review the Funding Plan annually. The review should include a comparison and evaluation of actual reserve funding with recommended levels shown on Page A.4 and A.5. The Projected Replacements listed on Page C.2 should be compared with any replacements accomplished and funded from Replacement Reserves. Discrepancies should be evaluated and if necessary, the Reserve Study should be updated or a new study commissioned. We recommend annual increases in replacement reserve funding to account for the impact of inflation. Inflation Adjusted Funding is discussed on Page A.5.

UPDATING OF THE REPLACEMENT RESERVE STUDY

At a minimum, the Replacement Reserve Study should be professionally updated every three to five years or after completion of a major replacement project. Updating should also be considered if during the annual review of the Funding Plan, discrepancies are noted between projected and actual reserve funding or replacement costs. Updating may also be necessary if there is a meaningful discrepancy between the actual inflation rate and the inflation rate used for the Inflation Adjusted Funding of Replacement Reserves on Page A.5.

ANNUAL EXPENDITURES AND CURRENT FUNDING

The annual expenditures that comprise the $7,463,992 of Projected Expenditures over the 40-year Study Period and the impact of the Association continuing to fund Replacement Reserves at the current level are detailed in Table 3.

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

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Starting Balance	$346,183									
Projected Replacements	($231,990)	($7,948)	($278,521)	($152,299)	($262,926)	($89,924)	($319,884)	($270,631)	($47,310)	($149,742)
Annual Deposit	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560
End of Year Balance	$325,753	$529,365	$462,404	$521,665	$470,299	$591,935	$483,611	$424,540	$588,790	$650,608
Cumulative Expenditures	($231,990)	($239,938)	($518,459)	($670,758)	($933,684)	($1,023,608)	($1,343,492)	($1,614,123)	($1,661,433)	($1,811,175)
Cumulative Receipts	$557,743	$769,303	$980,863	$1,192,423	$1,403,983	$1,615,543	$1,827,103	$2,038,663	$2,250,223	$2,461,783
Year	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
Projected Replacements	($153,687)		($126,711)	($46,350)	($30,045)	($239,531)	($42,404)	($36,853)	($90,272)	($43,793)
Annual Deposit	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560
End of Year Balance	$708,481	$920,041	$1,004,890	$1,170,100	$1,351,615	$1,323,644	$1,492,800	$1,667,507	$1,788,794	$1,956,561
Cumulative Expenditures	($1,964,862)	($1,964,862)	($2,091,573)	($2,137,923)	($2,167,968)	($2,407,499)	($2,449,903)	($2,486,756)	($2,577,029)	($2,620,822)
Cumulative Receipts	$2,673,343	$2,884,903	$3,096,463	$3,308,023	$3,519,583	$3,731,143	$3,942,703	$4,154,263	$4,365,823	$4,577,383
Year	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**
Projected Replacements	($1,278,662)	($130,402)	($337,064)	($38,403)	($310,291)	($251,768)	($251,584)	($376,580)	($40,343)	($35,845)
Annual Deposit	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560
End of Year Balance	$889,460	$970,618	$845,114	$1,018,272	$919,541	$879,334	$839,310	$674,290	$845,507	$1,021,222
Cumulative Expenditures	($3,899,483)	($4,029,885)	($4,366,949)	($4,405,351)	($4,715,642)	($4,967,409)	($5,218,993)	($5,595,573)	($5,635,916)	($5,671,762)
Cumulative Receipts	$4,788,943	$5,000,503	$5,212,063	$5,423,623	$5,635,183	$5,846,743	$6,058,303	$6,269,863	$6,481,423	$6,692,983
Year	**2051**	**2052**	**2053**	**2054**	**2055**	**2056**	**2057**	**2058**	**2059**	**2060**
Projected Replacements	($1,071,775)	($19,278)	($53,543)	($166,239)	($33,488)	($105,330)	($110,394)	($49,091)	($33,350)	($149,742)
Annual Deposit	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560	$211,560
End of Year Balance	$161,007	$353,289	$511,306	$556,626	$734,698	$840,928	$942,095	$1,104,564	$1,282,773	$1,344,591
Cumulative Expenditures	($6,743,536)	($6,762,814)	($6,816,357)	($6,982,597)	($7,016,085)	($7,121,415)	($7,231,808)	($7,280,899)	($7,314,250)	($7,463,992)
Cumulative Receipts	$6,904,543	$7,116,103	$7,327,663	$7,539,223	$7,750,783	$7,962,343	$8,173,903	$8,385,463	$8,597,023	$8,808,583

EVALUATION OF CURRENT FUNDING

The evaluation of Current Funding (Starting Balance of $346,183 & annual funding of $211,560), 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 103 Projected Replacements identified in the Replacement Reserve Inventory and that the Association will continue Annual Funding of $211,560 throughout the 40-year Study Period.

Annual Funding of $211,560 is approximately 100 percent of the $212,495 recommended Annual Funding calculated by the Cash Flow Method for 2021, the Study Year.

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

See the Executive Summary for the Current Funding Statement.

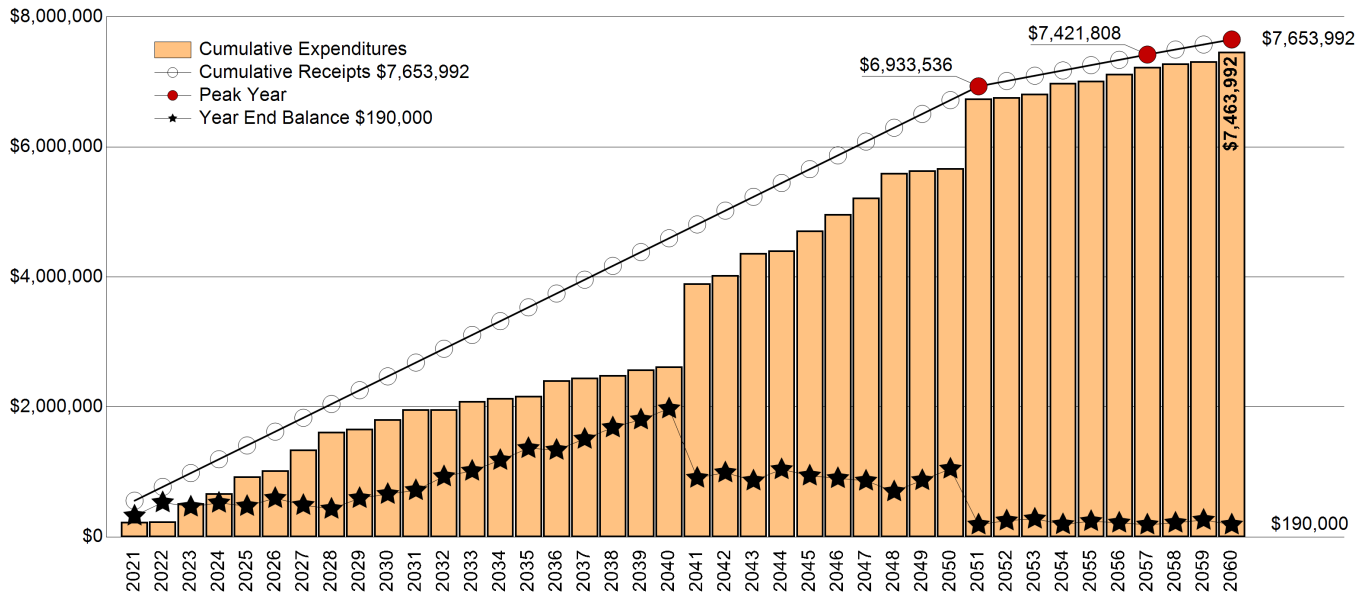
CASH FLOW METHOD FUNDING

$212,495 **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2021**
$25.30 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 2051 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of $6,743,536 of replacements from 2021 to 2051. Recommended funding is anticipated to decline in 2052. Peak Years are identified in Chart 4 and Table 5.
- Minimum Balance. The calculations assume a Minimum Balance of $190,000 will always be held in reserve, which is calculated by rounding the 12-month 40-year average annual expenditure of $186,600 as shown on Graph #2.
- Cash Flow Method Study Period. Cash Flow Method calculates funding for $7,463,992 of expenditures over the 40-year Study Period. It does not include funding for any projects beyond 2060 and in 2060, the end of year balance will always be the Minimum Balance.

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



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

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Starting Balance	$346,183									
Projected Replacements	($231,990)	($7,948)	($278,521)	($152,299)	($262,926)	($89,924)	($319,884)	($270,631)	($47,310)	($149,742)
Annual Deposit	$212,495	$212,495	$212,495	$212,495	$212,495	$212,495	$212,495	$212,495	$212,495	$212,495
End of Year Balance	$326,688	$531,236	$465,210	$525,406	$474,976	$597,547	$490,158	$432,022	$597,207	$659,961
Cumulative Expenditures	($231,990)	($239,938)	($518,459)	($670,758)	($933,684)	($1,023,608)	($1,343,492)	($1,614,123)	($1,661,433)	($1,811,175)
Cumulative Receipts	$558,678	$771,174	$983,669	$1,196,164	$1,408,659	$1,621,155	$1,833,650	$2,046,145	$2,258,640	$2,471,136
Year	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
Projected Replacements	($153,687)		($126,711)	($46,350)	($30,045)	($239,531)	($42,404)	($36,853)	($90,272)	($43,793)
Annual Deposit	$212,495	$212,495	$212,495	$212,495	$212,495	$212,495	$212,495	$212,495	$212,495	$212,495
End of Year Balance	$718,769	$931,264	$1,017,049	$1,183,194	$1,365,644	$1,338,608	$1,508,700	$1,684,342	$1,806,564	$1,975,267
Cumulative Expenditures	($1,964,862)	($1,964,862)	($2,091,573)	($2,137,923)	($2,167,968)	($2,407,499)	($2,449,903)	($2,486,756)	($2,577,029)	($2,620,822)
Cumulative Receipts	$2,683,631	$2,896,126	$3,108,622	$3,321,117	$3,533,612	$3,746,107	$3,958,603	$4,171,098	$4,383,593	$4,596,088
Year	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**
Projected Replacements	($1,278,662)	($130,402)	($337,064)	($38,403)	($310,291)	($251,768)	($251,584)	($376,580)	($40,343)	($35,845)
Annual Deposit	$212,495	$212,495	$212,495	$212,495	$212,495	$212,495	$212,495	$212,495	$212,495	$212,495
End of Year Balance	$909,101	$991,194	$866,626	$1,040,718	$942,923	$903,651	$864,562	$700,478	$872,630	$1,049,280
Cumulative Expenditures	($3,899,483)	($4,029,885)	($4,366,949)	($4,405,351)	($4,715,642)	($4,967,409)	($5,218,993)	($5,595,573)	($5,635,916)	($5,671,762)
Cumulative Receipts	$4,808,584	$5,021,079	$5,233,574	$5,446,070	$5,658,565	$5,871,060	$6,083,555	$6,296,051	$6,508,546	$6,721,041
Year	**1st Peak - 2051**	**2052**	**2053**	**2054**	**2055**	**2056**	**2nd Peak - 2057**	**2058**	**2059**	**3rd Peak - 2060**
Projected Replacements	($1,071,775)	($19,278)	($53,543)	($166,239)	($33,488)	($105,330)	($110,394)	($49,091)	($33,350)	($149,742)
Annual Deposit	$212,495	$81,379	$81,379	$81,379	$81,379	$81,379	$81,379	$77,394	$77,394	$77,394
End of Year Balance	$190,000	$252,101	$279,936	$195,076	$242,966	$219,015	$190,000	$218,303	$262,347	$190,000
Cumulative Expenditures	($6,743,536)	($6,762,814)	($6,816,357)	($6,982,597)	($7,016,085)	($7,121,415)	($7,231,808)	($7,280,899)	($7,314,250)	($7,463,992)
Cumulative Receipts	$6,933,536	$7,014,915	$7,096,294	$7,177,672	$7,259,051	$7,340,430	$7,421,808	$7,499,203	$7,576,597	$7,653,992

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.

$212,495 **2021 - CASH FLOW METHOD RECOMMENDED FUNDING**

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

$217,383 **2022 - INFLATION ADJUSTED FUNDING**

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

- Replacement Reserves on Deposit totaling $326,688 on January 1, 2022.
- All 2021 Projected Replacements listed on Page C.2 accomplished at a cost to Replacement Reserves less than $231,990.
- Construction Cost Inflation of 2.30 percent in 2021.

The $217,383 inflation adjusted funding in 2022 is a 2.29 percent increase over the non-inflation adjusted funding of $212,495.

$222,382 **2023 - INFLATION ADJUSTED FUNDING**

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

- Replacement Reserves on Deposit totaling $551,030 on January 1, 2023.
- All 2022 Projected Replacements listed on Page C.2 accomplished at a cost to Replacement Reserves less than $7,948.
- Construction Cost Inflation of 2.30 percent in 2022.

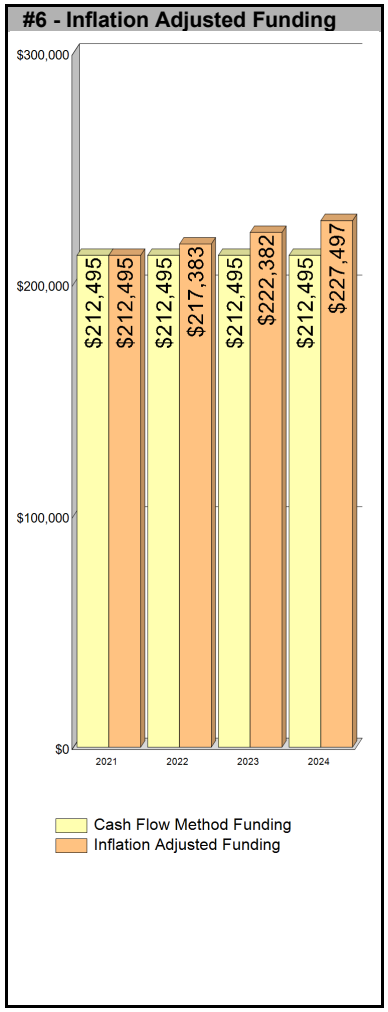
The $222,382 inflation adjusted funding in 2023 is a 4.65 percent increase over the non-inflation adjusted funding of $212,495.

$227,497 **2024 - INFLATION ADJUSTED FUNDING**

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

- Replacement Reserves on Deposit totaling $286,135 on January 1, 2024.
- All 2023 Projected Replacements listed on Page C.2 accomplished at a cost to Replacement Reserves less than $285,090.
- Construction Cost Inflation of 2.30 percent in 2023.

The $227,497 inflation adjusted funding in 2024 is a 7.05 percent increase over the non-inflation adjusted funding of $212,495.



Year Five and Beyond

The inflation-adjusted funding calculations outlined above are not intended to be a substitute for periodic evaluation of common elements by an experienced Reserve Analyst. Industry Standards, lender requirements, and many state and local statutes require a Replacement Reserve Study to be professionally updated every 3 to 5 years.

Inflation Adjustment

Prior to approving a budget based upon the 2022, 2023 and 2024 inflation-adjusted funding calculations above, the 2.30 percent base rate of inflation used in our calculations should be compared to rates published by the Bureau of Labor Statistics. If there is a significant discrepancy (over 1 percentage point), contact Miller+Dodson Associates prior to using the Inflation Adjusted Funding.

Interest on Reserves

The recommended funding calculations do not account for interest earned on Replacement Reserves. In 2021, based on a 1.00 percent interest rate, we estimate the Association may earn $3,364 on an average balance of $336,436, $4,389 on an average balance of $438,859 in 2022, and $4,186 on $418,583 in 2023. The Association may elect to attribute 100 percent of the earned interest to Reserves, resulting in a reduction in the 2021 funding from $212,495 to $209,131 (a 1.58 percent reduction), $217,383 to $212,994 in 2022 (a 2.01 percent reduction), and $222,382 to $218,197 in 2023 (a 1.88 percent reduction).

REPLACEMENT RESERVE STUDY - SUPPLEMENTAL COMMENTS

12.8.2020: Per request, changed address.

- The Cash Flow Method calculates the minimum annual funding necessary to prevent Replacement Reserves from dropping below the Minimum Balance, as defined on Page A4. Failure to fund at least the recommended levels may result in funding not being available for the Projected Replacements listed in the Replacement Reserve Inventory.
- The accuracy of the Replacement Reserve Analysis is dependent upon expenditures from Replacement Reserves being made ONLY for the 103 Projected Replacements specifically listed in the Replacement Reserve Inventory. The inclusion/exclusion of items from the Replacement Reserve Inventory is discussed on Page B.1.

REPLACEMENT RESERVE INVENTORY
GENERAL INFORMATION

Haydens Crossing North Master Association - Replacement Reserve Inventory identifies 103 Projected Replacements.

- PROJECTED REPLACEMENTS. 103 of the items are Projected Replacements and the periodic replacements of these items are scheduled for funding from Replacement Reserves. The Projected Replacements have an estimated one-time replacement cost of $3,192,403. Cumulative Replacements totaling $7,463,992 are scheduled in the Replacement Reserve Inventory over the 40-year Study Period.

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

- EXCLUDED ITEMS. None of the items included in the Replacement Reserve Inventory are 'Excluded Items'. Multiple categories of items are typically excluded from funding by Replacement Reserves, including but not limited to:

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

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

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

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

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

- CATEGORIES. The 103 items included in the Haydens Crossing North Master Association 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 One Study - Full Service, as defined by the National Reserve Study Standards, established in 1998 by Community Associations Institute, which states:

  A Level I - Full-Service Reserve Study includes the computation of complete component inventory information regarding commonly owned components provided by the Association, quantities derived from field measurements, and/or quantity takeoffs from to-scale engineering drawings that may be made available. The condition of all components is ascertained from a visual inspection of each component by the analyst. The remaining economic life and the value of the components are provided based on these observations and the funding status and funding plan are then derived from the analysis of this data.

REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (CONT'D)

- INVENTORY DATA. Each of the 103 Projected Replacements listed in the Replacement Reserve Inventory includes the following data:

  Item Number. The Item Number is assigned sequentially and is intended for identification purposes only.

  Item Description. We have identified each item included in the Inventory. Additional information may be included in the Comments section at the bottom of each page of the Inventory.

  Units. We have used standard abbreviations to identify the number of units including SF-square feet, LF-lineal feet, SY-square yard, LS-lump sum, EA-each, and PR-pair. Non-standard abbreviations are noted in the Comments section at the bottom of the page.

  Number of Units. The methods used to develop the quantities are discussed in "Level of Service" above.

  Unit Replacement Cost. We use four sources to develop the unit cost data shown in the Inventory; actual replacement cost data provided by the client, information provided by local contractors and suppliers, industry standard estimating manuals, and a cost database we have developed based upon our detailed interviews with contractors and service providers who are specialists in their respective lines of work.

  Normal Economic Life (Years). The number of years that a new and properly installed item should be expected to remain in service.

  Remaining Economic Life (Years). The estimated number of years before an item will need to be replaced. In "normal" conditions, this could be calculated by subtracting the age of the item from the Normal Economic Life of the item, but only rarely do physical assets age "normally". Some items may have longer or shorter lives depending on many factors such as environment, initial quality of the item, maintenance, etc.

  Total Replacement Cost. This is calculated by multiplying the Unit Replacement Cost by the Number of Units.

- REVIEW OF EXPENDITURES. This Replacement Reserve Study should be reviewed by an accounting professional representing the Association prior to implementation.

- PARTIAL FUNDING. Items may have been included in the Replacement Reserve Inventory at less than 100 percent of their full quantity and/or replacement cost. This is done on items that will never be replaced in their entirety, but which may require periodic replacements over an extended period of time. The assumptions that provide the basis for any partial funding are noted in the Comments section.

- REMAINING ECONOMIC LIFE GREATER THAN 40 YEARS. The calculations do not include funding for initial replacements beyond 40 years. These replacements are included in this Study for tracking and evaluation. They should be included for funding in future Studies, when they enter the 40-year window.

SITE IMPROVEMENTS
PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
1	Asphalt, roads, alley mill & overlay, (25%)	sf	136,570	$1.68	20	none	$229,438
2	Asphalt roads, alley seal coat, (25%)	sf	136,570	$0.22	5	2	$30,045
3	Asphalt roads, alley mill & overlay, (25%)	sf	136,570	$1.68	20	2	$229,438
4	Asphalt roads, alley, seal coat, (25%)	sf	136,570	$0.22	5	3	$30,045
5	Asphalt roads, alley mill & overlay, (25%)	sf	136,570	$1.68	20	4	$229,438
6	Asphalt roads, alley seal coat, (25%)	sf	136,570	$0.22	5	4	$30,045
7	Asphalt roads, alley, mill & overlay, (25%)	sf	136,570	$1.68	20	6	$229,438
8	Asphalt roads, alley, seal coat, (25%)	sf	136,570	$0.22	5	5	$30,045
9	Asphalt parking, mill & overlay (CH)	sf	2,264	$1.68	20	10	$3,804
10	Asphalt parking, seal coat (CH)	sf	2,264	$0.22	5	2	$498
11	Asphalt path, overlay	sf	9,800	$4.85	15	10	$47,530
12	Pool deck, concrete (6%) (CH)	sf	324	$11.50	6	3	$3,726
13	Concrete apron (6%)	sf	583	$11.30	6	1	$6,588
14	Concrete curb & gutter, (6%)	ft	1,330	$35.50	6	6	$47,215
15	Concrete curb & gutter, (6%) (CH)	ft	21	$35.50	6	3	$746
16	Concrete sidewalks (6%)	sf	10,000	$10.85	6	3	$108,500
17	Concrete sidewalks (6% (CH)	sf	192	$10.85	6	4	$2,083
18	Concrete pavilion /mailbox /bench / bike rack pads	sf	150	$10.85	6	none	$1,628
19	Wheel stops, concrete (CH)	ea	16	$100.00	20	10	$1,600
20	Entrance monument, carved wood sign (CH)	sf	16	$110.00	15	6	$1,760
21	Entrance monument, repoint masonry (10%)	sf	100	$10.50	10	8	$1,050
22	Retaining wall, stone, dry-layed (CH)	sf	285	$65.00	80	65	$18,525
						Replacement Costs - Page Subtotal	$1,283,184

COMMENTS

- CH = Club House EM = Entry Monument
- 12.14.2020: Per request, added 1,680 sf to each Asphalt line item (#1-8) to account for Greybull Street being added. According to calculations, Greybull Street is 6,720 sf. Originally 134,890 sf + 1,680 sf = 136,570 sf per line item. Please note, quantity is rounded up.

SITE IMPROVEMENTS - (cont.)

PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
23	Flood light, ground mounted (CH)	ea	4	$195.00	10	3	$780
24	Domestic water main (10%)	ls	1	$288,000.00	10	20	$288,000
25	Domestic water laterals (10%)	ft	2,160	$94.50	10	20	$204,120
26	Sanitary main (10%)	ls	1	$230,400.00	10	20	$230,400
27	Sanitary laterals (10%)	ft	2,163	$82.50	10	20	$178,448
28	Storm water pond dredging, (5 ponds)	cy	3,080	$75.00	20	7	$231,000
29	Aeration fountain, pump.	ea	3	$5,800.00	10	2	$17,400
30	Aeration fountain, pump.	ea	1	$5,800.00	10	9	$5,800
31	Pond lights	ea	12	$90.00	10	5	$1,080
32	Storm water management (10% allowance)	ls	1	$5,000.00	10	20	$5,000
33	Mailbox, cluster (16 unit CBU)	units	45	$2,200.00	35	25	$99,000
34	Metal benches, 6'	ea	33	$450.00	60	45	$14,850
35	Pump house, stone veneer, wood batt. standing	ls	1	$8,900.00	30	20	$8,900
36	Pavilion, wood trim w/ asphalt shingle 14x20	ls	1	$13,500.00	45	30	$13,500
37	Irrigation, controller (EM, CH)	ea	3	$1,250.00	10	6	$3,750

Replacement Costs - Page Subtotal $1,302,028

COMMENTS

- CH = Club House EM = Entry Monument
- 12.14.2020: Per request, added 1,680 sf to each Asphalt line item (#1-8) to account for Greybull Street being added. According to calculations, Greybull Street is 6,720 sf. Originally 134,890 sf + 1,680 sf = 136,570 sf per line item. Please note, quantity is rounded up.

BUILDING EXTERIOR (CH)

PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
38	Roofing, asphalt shingles (CH)	sf	3,760	$5.00	40	15	$18,800
39	Gutter & downspouts, 6" aluminum (CH)	ft	340	$13.50	30	28	$4,590
40	Siding & trim, pine board & batten, gable vent (2)	ls	1	$36,500.00	30	22	$36,500
41	Masonry (10% repointing allowance) (CH)	sf	160	$9.80	10	20	$1,568
42	Window, stationary (CH)	sf	235	$40.50	40	20	$9,518
43	Window, operating (CH)	sf	440	$49.50	40	30	$21,780
44	Door, wood & glass (3' X 6'8")	ea	2	$1,250.00	25	18	$2,500
45	Door, metal, flush (3' X 6'8") (CH)	ea	2	$960.00	25	15	$1,920
46	Door, French, wood w/glass(6' X 6'8") (CH)	ea	3	$2,540.00	30	20	$7,620
47	Door transoms (CH)	ea	4	$650.00	25	18	$2,600

Replacement Costs - Page Subtotal $107,396

COMMENTS

- Item #39: Gutter & downspouts, 6" aluminum (CH) - Per board request, changed REL. Replaced in 2019.

BUILDING INTERIOR (CH)

PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
48	Flooring, carpet	sf	1,485	$4.85	10	3	$7,202
49	Flooring, ceramic tile	sf	660	$37.50	25	20	$24,750
50	Flooring, wood laminate, replace	sf	450	$15.50	20	16	$6,975
51	Rubber flooring (1/2")	sf	560	$4.85	10	6	$2,716
52	Stair railing, railing wood	ft	52	$47.00	40	25	$2,444
53	Interior door, glass (1/2" door with metal frame)	ea	6	$1,640.00	25	16	$9,840
54	Interior fire door & frame, flush	ea	2	$1,230.00	25	12	$2,460
55	Interior door & frame, wood, panel	ea	11	$980.00	25	15	$10,780
56	Interior glass wall panels.	sf	84	$48.00	40	25	$4,032
57	Interior glass windows	sf	27	$39.50	25	18	$1,067
58	Security camera (IP)	ea	3	$280.00	10	8	$840
59	Emergency lighting with exit sign (4)/emergency	ls	1	$1,100.00	20	12	$1,100
60	Interior lighting, general, recess	ea	24	$150.00	30	22	$3,600
61	Interior lighting, med/large pendent	ea	4	$390.00	20	12	$1,560
62	Interior lighting, small pendent	ea	4	$260.00	14	10	$1,040
63	Plantation fan, ceiling mounted, no light	ea	6	$680.00	21	10	$4,080
64	Ceiling fan, no light (2)/ vanity wall fixt.(2)	ls	1	$1,250.00	21	12	$1,250
65	Wall tile, ceramic	sf	440	$37.50	25	15	$16,500
66	Wall wood paneling / wainscoting	sf	220	$4.90	25	20	$1,078
67	Furniture, sofa, chairs, game tables ,tv ,area rugs	ls	1	$15,000.00	14	8	$15,000
				Replacement Costs - Page Subtotal			$118,314

COMMENTS

- Item #58: Security camera (IP) - Security cameras were installed in 2019. Per board request, changed REL.

BUILDING INTERIOR (CH) - (cont.)

PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
68	Fireplace, gas log (direct vent)	ea	2	$1,900.00	21	10	$3,800
69	Kitchen, residential appliances	ea	3	$1,150.00	21	10	$3,450
70	Kitchen, residential, solid surface countertop	sf	100	$72.00	35	20	$7,200
71	Kitchen, residential cabinets	ft	54	$235.00	21	12	$12,690
72	Restrooms,sinks, mirrors, toilets & stall/urnal &	ls	1	$1,800.00	20	12	$1,800
73	Treadmill	ea	2	$6,870.00	10	5	$13,740
74	Elliptical trainer	ea	2	$6,580.00	10	5	$13,160
75	Stepper	ea	2	$3,380.00	15	5	$6,760
76	Vert. bench press	ea	2	$4,140.00	10	5	$8,280
77	Bicep / Tricep	ea	1	$3,675.00	10	5	$3,675
78	Abdominal	ea	1	$4,450.00	10	5	$4,450
79	Free weight gym w/ 500 lb. plate set	ea	1	$5,530.00	15	5	$5,530

Replacement Costs - Page Subtotal $84,535

COMMENTS

- Item #69: Kitchen, residential appliances - Per request, changed # of units. Per board, we have 2 refrigerators and one microwave.

BUILDING SYSTEMS (CH)
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	Building piping, allowance (CH)	ls	1	$3,100.00	60	46	$3,100
81	AC split system, 2 ton (CH)	ea	4	$3,100.00	15	10	$12,400
						Replacement Costs - Page Subtotal	$15,500

COMMENTS

- Item #80: Building piping, allowance (CH) - Changed REL per board request.

RECREATION ITEMS
PROJECTED REPLACEMENTS

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

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
82	Swimming pool structure	sf	1,850	$90.00	60	48	$166,500
83	Swimming pool, whitecoat	sf	6,485	$5.50	10	10	$35,668
84	Swimming pool waterline tile (6x6)	ft	205	$10.75	10	5	$2,204
85	Swimming pool coping, precast concrete	ft	205	$29.50	20	10	$6,048
86	Pool pump, 2HP	ea	1	$1,140.00	5	2	$1,140
87	Pool filter, Sand, 19"	ea	1	$780.00	15	10	$780
88	Chemical feed pump	ea	1	$375.00	5	3	$375
89	Pool furniture, chair, vinyl strap	ea	50	$120.00	10	6	$6,000
90	Pool furniture, lounge, vinyl strap	ea	50	$175.00	10	6	$8,750
91	Pool furniture, round table 36"	ea	6	$155.00	10	6	$930
92	Pool furniture, umbrella (6)	ea	6	$290.00	12	6	$1,740
93	Pool furniture, umbrella stand (40 lb)	ea	6	$48.00	12	6	$288
94	Security camera and recorder	ls	1	$1,000.00	10	5	$1,000
95	Perimeter fence, 6' decorative metal , incl. gate	ls	1	$15,406.00	50	35	$15,406
96	Metal trash cans	ea	2	$400.00	60	45	$800
97	Wood trellis, (2)	ea	2	$3,500.00	25	12	$7,000
98	Tot lot, MP structure, 2 platforms & 2 slides (small)	ea	1	$13,250.00	15	6	$13,250
99	Tot lot, A-frame swing, 2 seat	ea	1	$1,495.00	15	6	$1,495
100	Tot lot surfacing, wood mulch 3" (10%)	sf	1,236	$1.10	3	1	$1,360
101	Bike rack, 9 bikes	ea	11	$470.00	30	17	$5,170
102	Volleyball court, sand (20%)	sf	500	$1.85	3	none	$925
103	Volleyball court border, 6"PVS pipie	lf	220	$21.00	30	20	$4,620
				Replacement Costs - Page Subtotal			$281,447

COMMENTS

- Item #89: Pool furniture, chair, vinyl strap - Replaced in 2017, per board. Changed REL
- Item #90: Pool furniture, lounge, vinyl strap - Replaced in 2017, per board. Changed REL

VALUATION EXCLUSIONS

Excluded Items

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
	Miscellaneous signage						EXCLUDED
	Sprinkler head						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 ($)	NEL	REL	REPLACEMENT COST ($)
	Exterior stone veneer						EXCLUDED
	Building foundation(s)						EXCLUDED
	Concrete floor slabs (interior)						EXCLUDED
	Wall, floor, & roof structure						EXCLUDED
	Common element electrical services						EXCLUDED
	Electrical wiring						EXCLUDED
	Gas services at common facilities						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.

UTILITY EXCLUSIONS
Excluded Items

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NEL	REL	REPLACEMENT COST ($)
	Primary electric feeds						EXCLUDED
	Electric transformers						EXCLUDED
	Cable TV systems and structures						EXCLUDED
	Telephone cables and structures						EXCLUDED
	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 ($)	NEL	REL	REPLACEMENT COST ($)
	Cleaning of asphalt pavement						EXCLUDED
	Crack sealing of asphalt pavement						EXCLUDED
	Painting of curbs						EXCLUDED
	Striping of parking spaces						EXCLUDED
	Exterior painting						EXCLUDED
	Interior painting						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 & parking						EXCLUDED
	Government, sidewalks & curbs						EXCLUDED
	Government, lighting						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 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.

INTENTIONALLY LEFT BLANK

PROJECTED ANNUAL REPLACEMENTS
GENERAL INFORMATION

CALENDAR OF ANNUAL REPLACEMENTS. The 103 Projected Replacements in the Haydens Crossing North Master Association Replacement Reserve Inventory whose replacement is scheduled to be funded from Replacement Reserves are broken down on a year-by-year basis, beginning on Page C.2.

REPLACEMENT RESERVE ANALYSIS AND INVENTORY POLICIES, PROCEDURES, AND ADMINISTRATION

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

PROJECTED REPLACEMENTS

Item	2021 - Study Year	$
1	Asphalt, roads, alley mill & overlay, (25%)	$229,438
18	Concrete pavilion /mailbox /bench / bike rack pads (6%	$1,628
102	Volleyball court, sand (20%)	$925
	Total Scheduled Replacements	$231,990

Item	2022 - YEAR 1	$
13	Concrete apron (6%)	$6,588
100	Tot lot surfacing, wood mulch 3" (10%)	$1,360
	Total Scheduled Replacements	$7,948

Item	2023 - YEAR 2	$
2	Asphalt roads, alley seal coat, (25%)	$30,045
3	Asphalt roads, alley mill & overlay, (25%)	$229,438
10	Asphalt parking, seal coat (CH)	$498
29	Aeration fountain, pump.	$17,400
86	Pool pump, 2HP	$1,140
	Total Scheduled Replacements	$278,521

Item	2024 - YEAR 3	$
4	Asphalt roads, alley, seal coat, (25%)	$30,045
12	Pool deck, concrete (6%) (CH)	$3,726
15	Concrete curb & gutter, (6%) (CH)	$746
16	Concrete sidewalks (6%)	$108,500
23	Flood light, ground mounted (CH)	$780
48	Flooring, carpet	$7,202
88	Chemical feed pump	$375
102	Volleyball court, sand (20%)	$925
	Total Scheduled Replacements	$152,299

Item	2025 - YEAR 4	$
5	Asphalt roads, alley mill & overlay, (25%)	$229,438
6	Asphalt roads, alley seal coat, (25%)	$30,045
17	Concrete sidewalks (6% (CH)	$2,083
100	Tot lot surfacing, wood mulch 3" (10%)	$1,360
	Total Scheduled Replacements	$262,926

Item	2026 - YEAR 5	$
8	Asphalt roads, alley, seal coat, (25%)	$30,045
31	Pond lights	$1,080
73	Treadmill	$13,740
74	Elliptical trainer	$13,160
75	Stepper	$6,760
76	Vert. bench press	$8,280
77	Bicep / Tricep	$3,675
78	Abdominal	$4,450
79	Free weight gym w/ 500 lb. plate set	$5,530
84	Swimming pool waterline tile (6x6)	$2,204
94	Security camera and recorder	$1,000
	Total Scheduled Replacements	$89,924

PROJECTED REPLACEMENTS

Item	2027 - YEAR 6	$
7	Asphalt roads, alley, mill & overlay, (25%)	$229,438
14	Concrete curb & gutter, (6%)	$47,215
18	Concrete pavilion /mailbox /bench / bike rack pads (6%	$1,628
20	Entrance monument, carved wood sign (CH)	$1,760
37	Irrigation, controller (EM, CH)	$3,750
51	Rubber flooring (1/2")	$2,716
89	Pool furniture, chair, vinyl strap	$6,000
90	Pool furniture, lounge, vinyl strap	$8,750
91	Pool furniture, round table 36"	$930
92	Pool furniture, umbrella (6)	$1,740
93	Pool furniture, umbrella stand (40 lb)	$288
98	Tot lot, MP structure, 2 platforms & 2 slides (small)	$13,250
99	Tot lot, A-frame swing, 2 seat	$1,495
102	Volleyball court, sand (20%)	$925
	Total Scheduled Replacements	$319,884

Item	2028 - YEAR 7	$
2	Asphalt roads, alley seal coat, (25%)	$30,045
10	Asphalt parking, seal coat (CH)	$498
13	Concrete apron (6%)	$6,588
28	Storm water pond dredging, (5 ponds)	$231,000
86	Pool pump, 2HP	$1,140
100	Tot lot surfacing, wood mulch 3" (10%)	$1,360
	Total Scheduled Replacements	$270,631

Item	2029 - YEAR 8	$
4	Asphalt roads, alley, seal coat, (25%)	$30,045
21	Entrance monument, repoint masonry (10%)	$1,050
58	Security camera (IP)	$840
67	Furniture, sofa, chairs, game tables ,tv ,area rugs	$15,000
88	Chemical feed pump	$375
	Total Scheduled Replacements	$47,310

Item	2030 - YEAR 9	$
6	Asphalt roads, alley seal coat, (25%)	$30,045
12	Pool deck, concrete (6%) (CH)	$3,726
15	Concrete curb & gutter, (6%) (CH)	$746
16	Concrete sidewalks (6%)	$108,500
30	Aeration fountain, pump.	$5,800
102	Volleyball court, sand (20%)	$925
	Total Scheduled Replacements	$149,742

Item	2031 - YEAR 10	$
8	Asphalt roads, alley, seal coat, (25%)	$30,045
9	Asphalt parking, mill & overlay (CH)	$3,804
11	Asphalt path, overlay	$47,530
17	Concrete sidewalks (6% (CH)	$2,083
19	Wheel stops, concrete (CH)	$1,600
62	Interior lighting, small pendent	$1,040
63	Plantation fan, ceiling mounted, no light	$4,080
68	Fireplace, gas log (direct vent)	$3,800
69	Kitchen, residential appliances	$3,450
81	AC split system, 2 ton (CH)	$12,400
83	Swimming pool, whitecoat	$35,668
85	Swimming pool coping, precast concrete	$6,048
87	Pool filter, Sand, 19"	$780
100	Tot lot surfacing, wood mulch 3" (10%)	$1,360
	Total Scheduled Replacements	$153,687

Item	2032 - YEAR 11	$
	No Scheduled Replacements	

PROJECTED REPLACEMENTS

Item	2033 - YEAR 12	$
2	Asphalt roads, alley seal coat, (25%)	$30,045
10	Asphalt parking, seal coat (CH)	$498
14	Concrete curb & gutter, (6%)	$47,215
18	Concrete pavilion /mailbox /bench / bike rack pads (6%	$1,628
29	Aeration fountain, pump.	$17,400
54	Interior fire door & frame, flush	$2,460
59	Emergency lighting with exit sign (4)/emergency light	$1,100
61	Interior lighting, med/large pendent	$1,560
64	Ceiling fan, no light (2)/ vanity wall fixt.(2)	$1,250
71	Kitchen, residential cabinets	$12,690
72	Restrooms,sinks, mirrors, toilets & stall/urnal & partitions	$1,800
86	Pool pump, 2HP	$1,140
97	Wood trellis, (2)	$7,000
102	Volleyball court, sand (20%)	$925
Total Scheduled Replacements		$126,711

Item	2034 - YEAR 13	$
4	Asphalt roads, alley, seal coat, (25%)	$30,045
13	Concrete apron (6%)	$6,588
23	Flood light, ground mounted (CH)	$780
48	Flooring, carpet	$7,202
88	Chemical feed pump	$375
100	Tot lot surfacing, wood mulch 3" (10%)	$1,360
Total Scheduled Replacements		$46,350

Item	2035 - YEAR 14	$
6	Asphalt roads, alley seal coat, (25%)	$30,045
Total Scheduled Replacements		$30,045

Item	2036 - YEAR 15	$
8	Asphalt roads, alley, seal coat, (25%)	$30,045
12	Pool deck, concrete (6%) (CH)	$3,726
15	Concrete curb & gutter, (6%) (CH)	$746
16	Concrete sidewalks (6%)	$108,500
31	Pond lights	$1,080
38	Roofing, asphalt shingles (CH)	$18,800
45	Door, metal, flush (3' X 6'8") (CH)	$1,920
55	Interior door & frame, wood, panel	$10,780
65	Wall tile, ceramic	$16,500
73	Treadmill	$13,740
74	Elliptical trainer	$13,160
76	Vert. bench press	$8,280
77	Bicep / Tricep	$3,675
78	Abdominal	$4,450
84	Swimming pool waterline tile (6x6)	$2,204
94	Security camera and recorder	$1,000
102	Volleyball court, sand (20%)	$925
Total Scheduled Replacements		$239,531

Item	2037 - YEAR 16	$
17	Concrete sidewalks (6% (CH)	$2,083
37	Irrigation, controller (EM, CH)	$3,750
50	Flooring, wood laminate, replace	$6,975
51	Rubber flooring (1/2")	$2,716
53	Interior door, glass (1/2" door with metal frame)	$9,840
89	Pool furniture, chair, vinyl strap	$6,000
90	Pool furniture, lounge, vinyl strap	$8,750
91	Pool furniture, round table 36"	$930
100	Tot lot surfacing, wood mulch 3" (10%)	$1,360
Total Scheduled Replacements		$42,404

Item	2038 - YEAR 17	$
2	Asphalt roads, alley seal coat, (25%)	$30,045
10	Asphalt parking, seal coat (CH)	$498
86	Pool pump, 2HP	$1,140
101	Bike rack, 9 bikes	$5,170
Total Scheduled Replacements		$36,853

PROJECTED REPLACEMENTS

Item	2039 - YEAR 18	$
4	Asphalt roads, alley, seal coat, (25%)	$30,045
14	Concrete curb & gutter, (6%)	$47,215
18	Concrete pavilion /mailbox /bench / bike rack pads (6%	$1,628
21	Entrance monument, repoint masonry (10%)	$1,050
44	Door, wood & glass (3' X 6'8")	$2,500
47	Door transoms (CH)	$2,600
57	Interior glass windows	$1,067
58	Security camera (IP)	$840
88	Chemical feed pump	$375
92	Pool furniture, umbrella (6)	$1,740
93	Pool furniture, umbrella stand (40 lb)	$288
102	Volleyball court, sand (20%)	$925
Total Scheduled Replacements		$90,272

Item	2040 - YEAR 19	$
6	Asphalt roads, alley seal coat, (25%)	$30,045
13	Concrete apron (6%)	$6,588
30	Aeration fountain, pump.	$5,800
100	Tot lot surfacing, wood mulch 3" (10%)	$1,360
Total Scheduled Replacements		$43,793

Item	2041 - YEAR 20	$
1	Asphalt, roads, alley mill & overlay, (25%)	$229,438
8	Asphalt roads, alley, seal coat, (25%)	$30,045
24	Domestic water main (10%)	$288,000
25	Domestic water laterals (10%)	$204,120
26	Sanitary main (10%)	$230,400
27	Sanitary laterals (10%)	$178,448
32	Storm water management (10% allowance)	$5,000
35	Pump house, stone veneer, wood batt. standing seam	$8,900
41	Masonry (10% repointing allowance) (CH)	$1,568
42	Window, stationary (CH)	$9,518
46	Door, French, wood w/glass(6' X 6'8") (CH)	$7,620
49	Flooring, ceramic tile	$24,750
66	Wall wood paneling / wainscoting	$1,078
70	Kitchen, residential, solid surface countertop	$7,200
75	Stepper	$6,760
79	Free weight gym w/ 500 lb. plate set	$5,530
83	Swimming pool, whitecoat	$35,668
103	Volleyball court border, 6"PVS pipie	$4,620
Total Scheduled Replacements		$1,278,662

Item	2042 - YEAR 21	$
12	Pool deck, concrete (6%) (CH)	$3,726
15	Concrete curb & gutter, (6%) (CH)	$746
16	Concrete sidewalks (6%)	$108,500
20	Entrance monument, carved wood sign (CH)	$1,760
98	Tot lot, MP structure, 2 platforms & 2 slides (small)	$13,250
99	Tot lot, A-frame swing, 2 seat	$1,495
102	Volleyball court, sand (20%)	$925
Total Scheduled Replacements		$130,402

Item	2043 - YEAR 22	$
2	Asphalt roads, alley seal coat, (25%)	$30,045
3	Asphalt roads, alley mill & overlay, (25%)	$229,438
10	Asphalt parking, seal coat (CH)	$498
17	Concrete sidewalks (6% (CH)	$2,083
29	Aeration fountain, pump.	$17,400
40	Siding & trim, pine board & batten, gable vent (2) (CH)	$36,500
60	Interior lighting, general, recess	$3,600
67	Furniture, sofa, chairs, game tables ,tv ,area rugs	$15,000
86	Pool pump, 2HP	$1,140
100	Tot lot surfacing, wood mulch 3" (10%)	$1,360
Total Scheduled Replacements		$337,064

Item	2044 - YEAR 23	$
4	Asphalt roads, alley, seal coat, (25%)	$30,045
23	Flood light, ground mounted (CH)	$780
48	Flooring, carpet	$7,202
88	Chemical feed pump	$375
Total Scheduled Replacements		$38,403

PROJECTED REPLACEMENTS

Item	2045 - YEAR 24	$
5	Asphalt roads, alley mill & overlay, (25%)	$229,438
6	Asphalt roads, alley seal coat, (25%)	$30,045
14	Concrete curb & gutter, (6%)	$47,215
18	Concrete pavilion /mailbox /bench / bike rack pads (6%	$1,628
62	Interior lighting, small pendent	$1,040
102	Volleyball court, sand (20%)	$925
	Total Scheduled Replacements	$310,291

Item	2046 - YEAR 25	$
8	Asphalt roads, alley, seal coat, (25%)	$30,045
11	Asphalt path, overlay	$47,530
13	Concrete apron (6%)	$6,588
31	Pond lights	$1,080
33	Mailbox, cluster (16 unit CBU)	$99,000
52	Stair railing, railing wood	$2,444
56	Interior glass wall panels.	$4,032
73	Treadmill	$13,740
74	Elliptical trainer	$13,160
76	Vert. bench press	$8,280
77	Bicep / Tricep	$3,675
78	Abdominal	$4,450
81	AC split system, 2 ton (CH)	$12,400
84	Swimming pool waterline tile (6x6)	$2,204
87	Pool filter, Sand, 19"	$780
94	Security camera and recorder	$1,000
100	Tot lot surfacing, wood mulch 3" (10%)	$1,360
	Total Scheduled Replacements	$251,768

Item	2047 - YEAR 26	$
7	Asphalt roads, alley, mill & overlay, (25%)	$229,438
37	Irrigation, controller (EM, CH)	$3,750
51	Rubber flooring (1/2")	$2,716
89	Pool furniture, chair, vinyl strap	$6,000
90	Pool furniture, lounge, vinyl strap	$8,750
91	Pool furniture, round table 36"	$930
	Total Scheduled Replacements	$251,584

Item	2048 - YEAR 27	$
2	Asphalt roads, alley seal coat, (25%)	$30,045
10	Asphalt parking, seal coat (CH)	$498
12	Pool deck, concrete (6%) (CH)	$3,726
15	Concrete curb & gutter, (6%) (CH)	$746
16	Concrete sidewalks (6%)	$108,500
28	Storm water pond dredging, (5 ponds)	$231,000
86	Pool pump, 2HP	$1,140
102	Volleyball court, sand (20%)	$925
	Total Scheduled Replacements	$376,580

Item	2049 - YEAR 28	$
4	Asphalt roads, alley, seal coat, (25%)	$30,045
17	Concrete sidewalks (6% (CH)	$2,083
21	Entrance monument, repoint masonry (10%)	$1,050
39	Gutter & downspouts, 6" aluminum (CH)	$4,590
58	Security camera (IP)	$840
88	Chemical feed pump	$375
100	Tot lot surfacing, wood mulch 3" (10%)	$1,360
	Total Scheduled Replacements	$40,343

Item	2050 - YEAR 29	$
6	Asphalt roads, alley seal coat, (25%)	$30,045
30	Aeration fountain, pump.	$5,800
	Total Scheduled Replacements	$35,845

PROJECTED REPLACEMENTS

Item	2051 - YEAR 30	$
8	Asphalt roads, alley, seal coat, (25%)	$30,045
9	Asphalt parking, mill & overlay (CH)	$3,804
14	Concrete curb & gutter, (6%)	$47,215
18	Concrete pavilion /mailbox /bench / bike rack pads (6%	$1,628
19	Wheel stops, concrete (CH)	$1,600
24	Domestic water main (10%)	$288,000
25	Domestic water laterals (10%)	$204,120
26	Sanitary main (10%)	$230,400
27	Sanitary laterals (10%)	$178,448
32	Storm water management (10% allowance)	$5,000
36	Pavilion, wood trim w/ asphalt shingle 14x20	$13,500
41	Masonry (10% repointing allowance) (CH)	$1,568
43	Window, operating (CH)	$21,780
83	Swimming pool, whitecoat	$35,668
85	Swimming pool coping, precast concrete	$6,048
92	Pool furniture, umbrella (6)	$1,740
93	Pool furniture, umbrella stand (40 lb)	$288
102	Volleyball court, sand (20%)	$925
Total Scheduled Replacements		$1,071,775

Item	2052 - YEAR 31	$
13	Concrete apron (6%)	$6,588
63	Plantation fan, ceiling mounted, no light	$4,080
68	Fireplace, gas log (direct vent)	$3,800
69	Kitchen, residential appliances	$3,450
100	Tot lot surfacing, wood mulch 3" (10%)	$1,360
Total Scheduled Replacements		$19,278

Item	2053 - YEAR 32	$
2	Asphalt roads, alley seal coat, (25%)	$30,045
10	Asphalt parking, seal coat (CH)	$498
29	Aeration fountain, pump.	$17,400
59	Emergency lighting with exit sign (4)/emergency light	$1,100
61	Interior lighting, med/large pendent	$1,560
72	Restrooms,sinks, mirrors, toilets & stall/urnal & partitions	$1,800
86	Pool pump, 2HP	$1,140
Total Scheduled Replacements		$53,543

Item	2054 - YEAR 33	$
4	Asphalt roads, alley, seal coat, (25%)	$30,045
12	Pool deck, concrete (6%) (CH)	$3,726
15	Concrete curb & gutter, (6%) (CH)	$746
16	Concrete sidewalks (6%)	$108,500
23	Flood light, ground mounted (CH)	$780
48	Flooring, carpet	$7,202
64	Ceiling fan, no light (2)/ vanity wall fixt.(2)	$1,250
71	Kitchen, residential cabinets	$12,690
88	Chemical feed pump	$375
102	Volleyball court, sand (20%)	$925
Total Scheduled Replacements		$166,239

Item	2055 - YEAR 34	$
6	Asphalt roads, alley seal coat, (25%)	$30,045
17	Concrete sidewalks (6% (CH)	$2,083
100	Tot lot surfacing, wood mulch 3" (10%)	$1,360
Total Scheduled Replacements		$33,488

Item	2056 - YEAR 35	$
8	Asphalt roads, alley, seal coat, (25%)	$30,045
31	Pond lights	$1,080
73	Treadmill	$13,740
74	Elliptical trainer	$13,160
75	Stepper	$6,760
76	Vert. bench press	$8,280
77	Bicep / Tricep	$3,675
78	Abdominal	$4,450
79	Free weight gym w/ 500 lb. plate set	$5,530
84	Swimming pool waterline tile (6x6)	$2,204
94	Security camera and recorder	$1,000
95	Perimeter fence, 6' decorative metal , incl. gate	$15,406
Total Scheduled Replacements		$105,330

PROJECTED REPLACEMENTS

Item	2057 - YEAR 36	$
14	Concrete curb & gutter, (6%)	$47,215
18	Concrete pavilion /mailbox /bench / bike rack pads (6%	$1,628
20	Entrance monument, carved wood sign (CH)	$1,760
37	Irrigation, controller (EM, CH)	$3,750
50	Flooring, wood laminate, replace	$6,975
51	Rubber flooring (1/2")	$2,716
67	Furniture, sofa, chairs, game tables ,tv ,area rugs	$15,000
89	Pool furniture, chair, vinyl strap	$6,000
90	Pool furniture, lounge, vinyl strap	$8,750
91	Pool furniture, round table 36"	$930
98	Tot lot, MP structure, 2 platforms & 2 slides (small)	$13,250
99	Tot lot, A-frame swing, 2 seat	$1,495
102	Volleyball court, sand (20%)	$925
	Total Scheduled Replacements	$110,394

Item	2058 - YEAR 37	$
2	Asphalt roads, alley seal coat, (25%)	$30,045
10	Asphalt parking, seal coat (CH)	$498
13	Concrete apron (6%)	$6,588
54	Interior fire door & frame, flush	$2,460
86	Pool pump, 2HP	$1,140
97	Wood trellis, (2)	$7,000
100	Tot lot surfacing, wood mulch 3" (10%)	$1,360
	Total Scheduled Replacements	$49,091

Item	2059 - YEAR 38	$
4	Asphalt roads, alley, seal coat, (25%)	$30,045
21	Entrance monument, repoint masonry (10%)	$1,050
58	Security camera (IP)	$840
62	Interior lighting, small pendent	$1,040
88	Chemical feed pump	$375
	Total Scheduled Replacements	$33,350

Item	2060 - YEAR 39	$
6	Asphalt roads, alley seal coat, (25%)	$30,045
12	Pool deck, concrete (6%) (CH)	$3,726
15	Concrete curb & gutter, (6%) (CH)	$746
16	Concrete sidewalks (6%)	$108,500
30	Aeration fountain, pump.	$5,800
102	Volleyball court, sand (20%)	$925
	Total Scheduled Replacements	$149,742

Item	2061 (beyond study period)	$
1	Asphalt, roads, alley mill & overlay, (25%)	$229,438
8	Asphalt roads, alley, seal coat, (25%)	$30,045
11	Asphalt path, overlay	$47,530
17	Concrete sidewalks (6% (CH)	$2,083
24	Domestic water main (10%)	$288,000
25	Domestic water laterals (10%)	$204,120
26	Sanitary main (10%)	$230,400
27	Sanitary laterals (10%)	$178,448
32	Storm water management (10% allowance)	$5,000
41	Masonry (10% repointing allowance) (CH)	$1,568
45	Door, metal, flush (3' X 6'8") (CH)	$1,920
55	Interior door & frame, wood, panel	$10,780
65	Wall tile, ceramic	$16,500
81	AC split system, 2 ton (CH)	$12,400
83	Swimming pool, whitecoat	$35,668
87	Pool filter, Sand, 19"	$780
100	Tot lot surfacing, wood mulch 3" (10%)	$1,360
	Total Scheduled Replacements	$1,296,039

Item	2062 (beyond study period)	$
53	Interior door, glass (1/2" door with metal frame)	$9,840
	Total Scheduled Replacements	$9,840

CONDITION ASSESSMENT

General Comments. Miller+Dodson Associates conducted a Reserve Study at Haydens Crossing North Master Association in November 2019. Haydens Crossing North Master Association is in generally good condition for a master association constructed between 2005 and 2017. A review of the Replacement Reserve Inventory will show that we are anticipating most of the components achieving their normal economic lives.

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

General Condition Statements.

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

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

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

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

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

SITE IMPROVEMENTS

Asphalt Pavement. The Association is responsible for the roadways, parking areas, and alleyways within the community; other roadways are maintained by the City, County, or other municipality. In general, the Association's asphalt pavements are in poor condition.





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

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

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

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

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









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

Street	sf
Winberry Creek Drive	12,580
Canyon Creek Drive	30,050
Bull Creek Drive	8,800
Little Falls Drive	16,050
Russell Fork Drive	15,150
Mossy Creek Drive	15,150
Pennington Creek Drive	18,760
Montana Creek Drive	12,600
Goose Fall Drive	30,470
Ivy Branch Drive	21,550
Buckhannon Drive	16,770
Ellis Brook Drive (Only own up to Bowery Brook)	21,490
Tygart Valley Drive	24,950
Trail Creek Drive	27,950
Passage Creek Drive (Do not own from Holly to Spring River)	38,650
Ruby Fork Drive	9,800
Marble Creek Drive	16,700
Greybull Street	6,720
TOTAL asphalt roads	**344,190**
*** Total asphalt pavement for alleys	**201,880**
TOTAL asphalt pavement community responsibility	***546,070***

Concrete Work. The concrete work includes the community curbs, sidewalks, leadwalks, pads, and other flatwork. We have modeled for curb replacement when the asphalt pavement is overlaid. The overall condition of the concrete work is poor.





Severe cracking of concrete pad and sidewalk at mailbox location and sinking concrete curb on a community road were observed. On some streets, there appears to be a concrete base under the asphalt overlay. These conditions need to be reviewed by a road contractor.





Cracking and a few trip hazards on sidewalk were observed in the community, and need to be addressed by the association.

The standards we use for recommending replacement are as follows:

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

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

Entry Monument and Signage. The Association maintains two entry monuments with walls and a monument pier. The monuments are made of rock of varying degrees of hardness including soft sedimentary stone. These soft stones are flaking in many locations. In addition, the masonry joints were found to be open in some areas and efflorescence is evident in some areas indicating water penetration into the masonry work..

Two monument signs lettering are carved in masonry and are considered a long life item, and is therefore excluded from this study.

The clubhouse monument has a two sided wood carved sign on a stone pier.





We recommend repointing and replacement of defective areas of the masonry as needed. The Association may want to consider applying a coating of Siloxane or other appropriate breathable sealant to mitigate water penetration and further degradation of the masonry work.

The monument / monuments are made of wood and are in poor condition, with damaged areas and weathering. In order to keep the monument fresh and appealing, we recommend replacement every 10 to 15 years.

In addition to monuments, the Association is responsible for community signage including stop, speed, street, and other major signs. Other small miscellaneous signs are not considered in this study and should be replaced using other funds.

Signs are not considered in this study and should be replaced using other funds.

Stormwater Pond. The community is served by 5 retention ponds, consisting of 2.95 acres, are in good condition





The largest pond in the center of the community has five concrete headwalls, Several metal benches with concrete pads and concrete walks surround and go through the park. The pond and park are in good condition. Both the larger and smaller ponds near the main entrance to the community are in good condition. An open wood pavilion/ asphalt roof sets on the edge of the retention pond supported by twelve 12 - 12' fiberglass columns. The pavilion is in good condition with the need of painting.

Ponds will accumulate silt and over time and lose the ability to store storm water at design levels, which could result in overflows and minor local flooding. In addition, water quality can be negatively affected by increased siltation and debris accumulation. Accordingly, ponds require periodic dredging.

Estimates of cost and the frequency of dredging ponds are a function of many variables, including the volume of the pond, the siltation rate, the nature of the material being removed, the method of removal, and the haul distance to a site that will accept the spoil material. Most of this information is unknown and must be assumed for the purpose of reserve study planning. The siltation rate and cost of periodic dredging are speculative, varying greatly depending on local conditions.

As a rule of thumb, dredging should be performed when approximately one-third of the volume of the pond has been filled with silt. In the absence of accurate information about the original depth of the pond and the local siltation rate, we have assumed that it will be necessary to remove one cubic yard of material over a third of the pond area periodically as noted in the inventory. We have assumed that the material being removed is free of heavy metals and hydrocarbons, and that it will be accepted as fill at a local landfill. A more accurate prediction of cost and cycles will require a hydrologic analysis and testing, which is beyond the scope of our study.

As a supplement to traditional dredging methods, hydro-raking can prolong the interval between dredging.

Because of the significant cost of this work, it is recommended that the Association undertake studies to refine the assumptions of this study.

Based on our understanding, we recommend the following:

- Periodically remove accumulated debris and vegetation growing in the ponds.
- Survey the ponds to establish the current profile of the bottom. After five years of operation, have the pond re-surveyed to establish new depths to determine the local siltation rate. This will establish the frequency required for periodic dredging.
- Periodically sample and test for contaminants.
- Consult with local contractors to determine the cost of removing and disposing of the spoil, once its nature is known.

Firms that specialize in this work can be typically found by internet searching “Lake and Pond, Construction and Maintenance” for your state or area of the country. Some states provide short lists of companies that specialize in this type of work.

Please note that the periodic removal of overgrown vegetation from the pond is considered a maintenance activity and has not been reserved for or included in this study.

Storm water structures must be maintained over time so that they may perform their two major functions - storm water storage and storm water quality improvement. A well-planned maintenance program is the best way to ensure that these structures will continue to perform their water quality and quantity functions.

The following information outlines the general maintenance considerations for storm-water management structures. Storm-water management structures will require routine and non-routine maintenance. Routine maintenance such as visual inspections, vegetation management, and the regular removal of debris and litter provides a variety of benefits such as reducing the chance of clogging outlet structures, trash racks, risers, and other facility components. It is important to note that while general maintenance tasks are suggested, actual maintenance needs are very site specific. Below is a lists component of a general maintenance program.

Routine:	Non-Routine:
• Visual Inspection	• Bank Stabilization
• Vegetation Management	• Sediment Removal
• Debris/Litter Control Outlet	• Structure Maintenance / Replacement
• Maintaining Undisturbed Areas Around Infiltration Trenches/Basins (routine)	• Maintenance of Mechanical Components (dependent on age of structure; non-routine)

Minimum Inspection Checklist for Ponds:

- Obstructions of the inlet or outlet devices by trash and debris
- Excessive erosion or sedimentation in the basin
- Deterioration of pipes
- Condition of the emergency spillway
- Stability of the side-slopes
- Signs of vandalism

Vegetation Management. Grass is usually used around and in storage ponds to prevent erosion and to filter sediment. The grass near the pond should not be over-fertilized, or the excessive nutrients will be washed into the pond and contribute to the growth of algae. Grass should be cut no shorter than 6-8 inches.

Please note that the periodic removal of overgrown vegetation from the pond is considered a maintenance activity and has not been reserved for or included in this study.

Sediment Removal. One of the main purposes of a storm-water management pond is to remove sediment from storm water. As water flows through the pond, sediment will accumulate and eventually will need to be removed. Storm-water management structures vary in design and shape. Therefore, there is no general rule for the frequency of sediment removal. Upstream conditions such as land use, type of land cover (vegetated vs. paved), and soil types are important

factors in determining how rapidly sediment will accumulate in a pond. Sediment removal is usually the single largest cost of maintaining a storm-water management structure. Owners are responsible for maintaining the facility and should plan ahead, setting aside the necessary funds to pay for sediment removal. The best solution to sediment removal is to designate an on-site area or a site adjacent to the facility where the sediment can be disposed. This area will need to locate outside of the floodplain. If such a disposal area is not available, the sediment will need to be transported and disposed of off-site. Transportation costs and disposal fees can greatly increase the cost of sediment removal. Once the sediment is removed, the bottom of the basin and any disturbed areas will need to be stabilized and re-vegetated, or the structure will quickly clog and require sediment removal again.

We have provided funds for the minor dredging of the detention pond and clearing of swales, creek area, and drainage lines. Because of the significance of the cost of this work in establishing the correct reserve contribution, it is recommended that the Association undertake studies to refine the information and replace the assumptions we have had to make with estimates based on your Associations current pond conditions.

BUILDING EXTERIOR (CH)

Synthetic Trim, Wood Batten, Siding. The clubhouse and pump house are covered with synthetic trim and wood batten siding. Some synthetic trim above windows on clubhouse have detached and were found laying on ground. A new trim board material or attachment process needs to be used for replacement.





The wood batten siding is typical on the pump house and clubhouse and is fair condition.

Wooden exterior materials are typically repaired as needed during normal painting cycles. Painting cycles for wooden exteriors vary between five and ten years depending on the grade of wood and the quality of the materials and finish work. In this study, we have modeled for incremental wood material replacement to coincide with the painting cycle of the facility. Painting has not been included in the Reserve Study.

As an alternative to high-maintenance materials, the Association may want to consider replacements using low maintenance synthetic or cementitious materials.

BUILDING INTERIOR (CH)

Carpet. The carpet in the clubhouse is in good/fair condition Commercial carpet of this construction in this type of application has a typical service life of 7 to 10 years.

The carpet has pulled threading in the main party room of the clubhouse. Heavy traffic on stairs to second floor will cause wearing. The carpet in general is in good condition to reach the normal economic life.

To extend the life of the carpet, it is important that the Association continue with a comprehensive maintenance program that includes regular vacuuming, spot and spill removal, interim cleaning of high traffic areas, and regular scheduled cleanings. It is also recommended that all entrances be fitted with walk-off mats to trap soil.



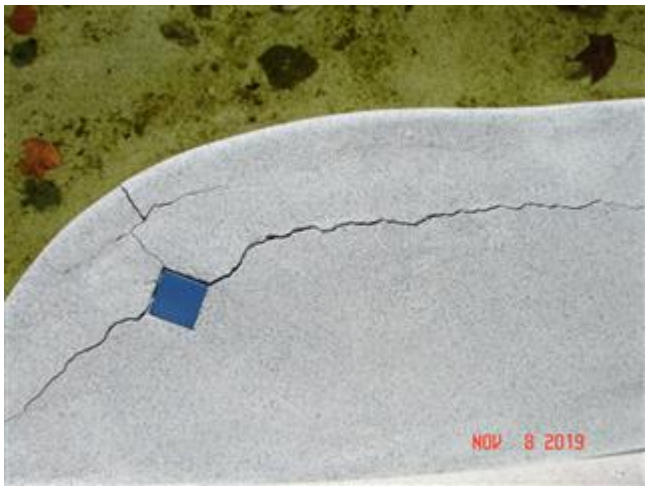


RECREATION ITEMS

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

The pool was winterized at the time of inspection and is reported to be in good condition.





The 6x6 water table tile is in good condition. The masonry coping has cracking off the tile insert and along the edges.

- Pool Shell The pool is constructed of concrete.
- Pool Deck. The pool has a concrete deck. The overall condition of the deck is good condition.
- Whitecoat. The pool whitecoat is in good. We have assumed a service life of eight to ten years for the pool whitecoat.
- Waterline Tile. The waterline tile is in good condition. We have assumed that the waterline tile will be replaced or restored when the pool is whitecoated.
- Coping. The pool is edged with masonry brick coping. The coping is in good condition.
- Pump and Filter System. The filter system is in good operating condition.
- Pool Fence. The swimming pool is enclosed by a metal fence that is in good condition.

Fencing. The Association maintains a 6' high metal fence with gate surrounding the swimming pool. Fencing systems have a large number of configurations and finishes that can usually be repaired as a maintenance activity by replacing individual components as they become damaged or weathered.

Aluminum fencing can have a useful life of 40 years or more. Periodic cleaning and touch-up painting may be required to keep the fence attractive.

The Association maintains steel fence posts and fasteners that are embedded in concrete.



As part of normal maintenance, we recommend the following:

- Lift or remove ornamental base covers, if applicable
- Remove 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 post
- Reinstall base covers, and seal and paint all joints

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

Wood Trellis. . The two trellis systems are inside the perimeter fencing of the swimming pool. The trellis will last its normal economic life of 20 years. Due to the exposure to the weather. if treated or stained , the NEL could be extended.





Wood Trellis. The community maintains two wood trellises /sun shades that surround the swimming pool. The trellises need to be maintained and stained to enable to reach NEL.The wood trellises are in fair condition.





Tot Lots. The community maintains a tot lots. These tot lot equipment includes play structures and a wood chip surface well maintained. The facility facilities are in generally good condition with minor wear.





The tot lot equipment appears in good condition. A wide concrete sidewalk border surrounds the tot lot area.

The safety of each individual piece of playground equipment as well as the layout of the entire play area should be considered when evaluating a playground for safety. The installation and maintenance of the protective surfacing under and around all equipment is crucial. Please note that the evaluation of the equipment and these facilities for safety is beyond the scope of this work.

Information for playground design and safety can be found in the "Public Playground Safety Handbook", U.S. Consumer Product Safety Commission (Pub Number 325). For a link to this handbook, please see our web site at www.mdareserves.com/resources/links/recreation.

Our estimates for playground equipment are based on comparing photos of the existing equipment with equipment of a similar size in manufacturers' catalogs. We use the pricing that is quoted by manufacturers for comparable equipment and add 30% for the disposal of the old equipment and installation of new equipment.

This Condition Assessment is based upon our visual survey of the property. The sole purpose of the visual survey was an evaluation of the common elements of the property to ascertain the remaining useful life and the replacement costs of these common elements. Our evaluation assumed that all components met building code requirements in force at the time of construction. Our visual survey was conducted with care by experienced persons, but no warranty or guarantee is expressed or implied.

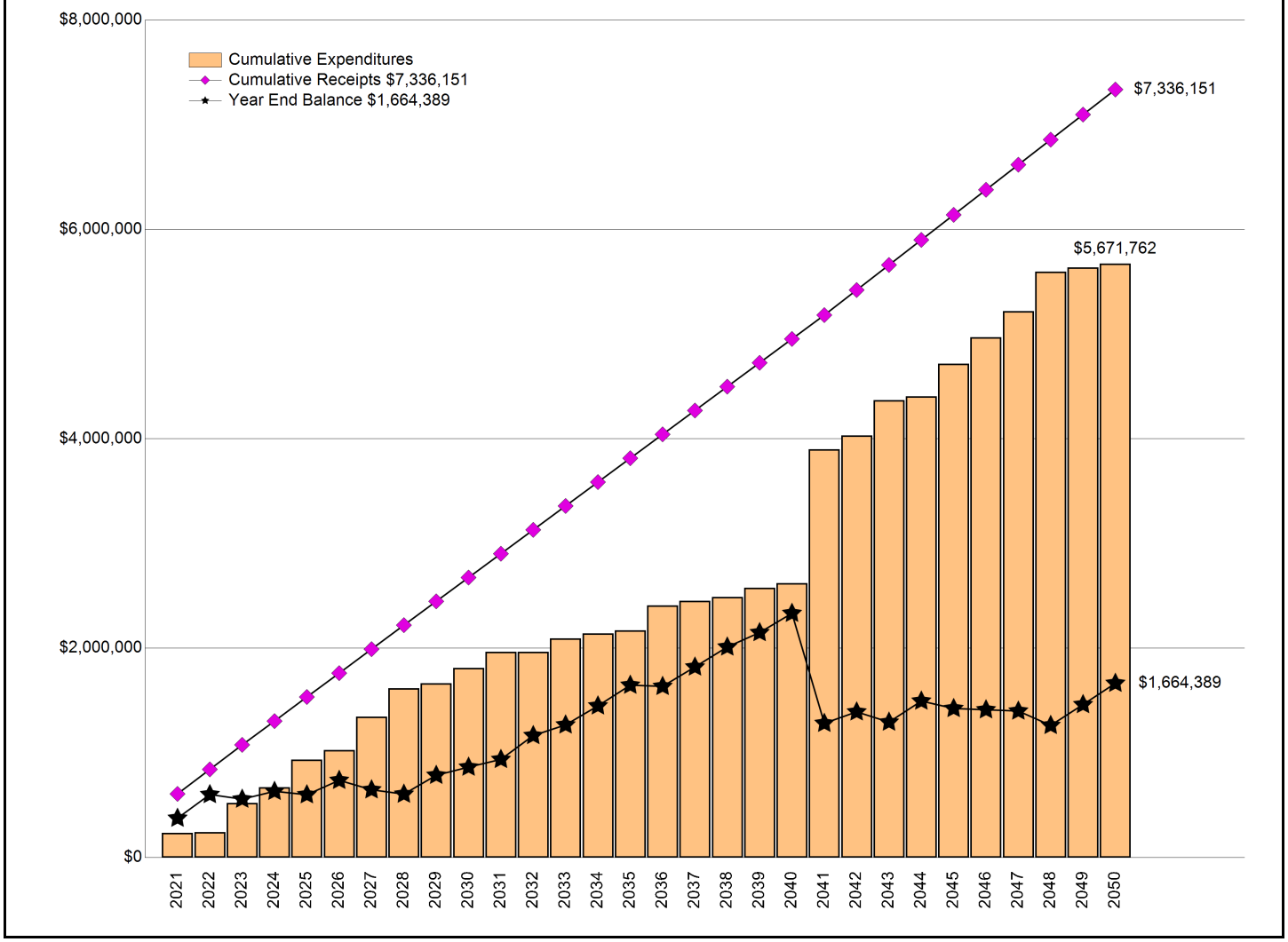
End of Condition Assessment

COMPONENT METHOD

$261,371 **COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2021.**$31.12 Per unit (average), recommended monthly funding of Replacement Reserves

General. The Component Method (also referred to as the Full Funded Method) is a very conservative mathematical model developed by HUD in the early 1980s. Each of the 103 Projected Replacements listed in the Replacement Reserve Inventory is treated as a separate account. The Beginning Balance is allocated to each of the individual accounts, as is all subsequent funding of Replacement Reserves. These funds are "locked" in these individual accounts and are not available to fund other Projected Replacements. The calculation of Recommended Annual Funding of Replacement Reserves is a multi-step process outlined in more detail on Page CM.2.

Component Method - Cumulative Receipts and Expenditures Graph



COMPONENT METHOD (CONT.)

- Current Funding Objective. A Current Funding Objective is calculated for each of the Projected Replacements listed in the Replacement Reserve Inventory. Replacement Cost is divided by the Normal Economic Life to determine the nominal annual contribution. The Remaining Economic Life is then subtracted from the Normal Economic Life to calculate the number of years that the nominal annual contribution should have been made. The two values are then multiplied to determine the Current Funding Objective. This is repeated for each of the 103 Projected Replacements. The total, $417,073, is the Current Funding Objective.

  For an example, consider a simple Replacement Reserve Inventory with one Projected Replacement, a fence with a $1,000 Replacement Cost, a Normal Economic Life of 10 years, and a Remaining Economic Life of 2 years. A contribution to Replacement Reserves of $100 ($1,000 ÷ 10 years) should have been made in each of the previous 8 years (10 years - 2 years). The result is a Current Funding Objective of $800 (8 years x $100 per year).

- Funding Percentage. The Funding Percentage is calculated by dividing the Beginning Balance ($346,183) by the Current Funding Objective ($417,073). At Haydens Crossing North Master Association the Funding Percentage is 83.0%

- Allocation of the Beginning Balance. The Beginning Balance is divided among the 103 Projected Replacements in the Replacement Reserve Inventory. The Current Funding Objective for each Projected Replacement is multiplied by the Funding Percentage and these funds are then "locked" into the account of each item.

  If we relate this calculation back to our fence example, it means that the Association has not accumulated $800 in Reserves (the Funding Objective), but rather at 83.0 percent funded, there is $664 in the account for the fence.

- Annual Funding. The Recommended Annual Funding of Replacement Reserves is then calculated for each Projected Replacement. The funds allocated to the account of the Projected Replacement are subtracted from the Replacement Cost. The result is then divided by the number of years until replacement, and the result is the annual funding for each of the Projected Replacements. The sum of these is $261,371, the Component Method Recommended Annual Funding of Replacement Reserves in the Study Year (2021).

  In our fence example, the $664 in the account is subtracted from the $1,000 Total Replacement Cost and divided by the 2 years that remain before replacement, resulting in an annual deposit of $168. Next year, the deposit remains $168, but in the third year, the fence is replaced and the annual funding adjusts to $100.

- Adjustment to the Component Method for interest and inflation. The calculations in the Replacement Reserve Analysis do not account for interest earned on Replacement Reserves, inflation, or a constant annual increase in Annual Funding of Replacement Reserves. The Component Method is a very conservative method and if the Analysis is updated regularly, adequate funding will be maintained without the need for adjustments.

Component Method Data - Years 1 through 30

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Beginning Balance	$346,183									
Recommended Annual Funding	$261,371	$233,984	$234,216	$227,165	$230,438	$227,535	$229,391	$229,204	$227,457	$227,468
Expenditures	$231,990	$7,948	$278,521	$152,299	$262,926	$89,924	$319,884	$270,631	$47,310	$149,742
Year End Balance	$375,564	$601,601	$557,296	$632,162	$599,674	$737,285	$646,791	$605,364	$785,511	$863,237
Cumulative Expenditures	$231,990	$239,938	$518,459	$670,758	$933,684	$1,023,608	$1,343,492	$1,614,123	$1,661,433	$1,811,175
Cumulative Receipts	$607,554	$841,539	$1,075,755	$1,302,920	$1,533,358	$1,760,893	$1,990,283	$2,219,487	$2,446,944	$2,674,413
Year	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
Recommended Annual Funding	$227,517	$228,088	$228,088	$228,020	$228,020	$228,020	$227,873	$227,867	$227,856	$227,853
Expenditures	$153,687		$126,711	$46,350	$30,045	$239,531	$42,404	$36,853	$90,272	$43,793
Year End Balance	$937,067	$1,165,155	$1,266,533	$1,448,202	$1,646,177	$1,634,666	$1,820,135	$2,011,149	$2,148,732	$2,332,793
Cumulative Expenditures	$1,964,862	$1,964,862	$2,091,573	$2,137,923	$2,167,968	$2,407,499	$2,449,903	$2,486,756	$2,577,029	$2,620,822
Cumulative Receipts	$2,901,929	$3,130,017	$3,358,105	$3,586,125	$3,814,145	$4,042,165	$4,270,038	$4,497,905	$4,725,761	$4,953,614
Year	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**
Recommended Annual Funding	$227,853	$239,463	$239,463	$239,442	$239,442	$239,442	$239,356	$239,356	$239,356	$239,360
Expenditures	$1,278,662	$130,402	$337,064	$38,403	$310,291	$251,768	$251,584	$376,580	$40,343	$35,845
Year End Balance	$1,281,985	$1,391,046	$1,293,446	$1,494,485	$1,423,637	$1,411,312	$1,399,085	$1,261,861	$1,460,875	$1,664,389
Cumulative Expenditures	$3,899,483	$4,029,885	$4,366,949	$4,405,351	$4,715,642	$4,967,409	$5,218,993	$5,595,573	$5,635,916	$5,671,762
Cumulative Receipts	$5,181,468	$5,420,931	$5,660,394	$5,899,837	$6,139,279	$6,378,721	$6,618,078	$6,857,434	$7,096,791	$7,336,151

2021 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 103 Projected Replacements included in the Haydens Crossing North Master Association Replacement Reserve Inventory has been assigned to one of the 5 categories listed in TABLE CM1 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- A Beginning Balance of $346,183 as of the first day of the Study Year, January 1, 2021.
- Total reserve funding (including the Beginning Balance) of $607,554 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2021 being accomplished in 2021 at a cost of $231,990.

If any of these critical factors are inaccurate, do not use the data and please contact Miller+Dodson Associates to arrange for an update of the Replacement Reserve Study.

2021 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM1

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2021 BEGINNING BALANCE	2021 RESERVE FUNDING	2021 PROJECTED REPLACEMENTS	2021 END OF YEAR BALANCE
SITE IMPROVEMENTS - Page 1	5 to 80 years	0 to 65 years	$2,585,211	$181,467	$233,676	$231,065	$857,082
BUILDING EXTERIOR (CH) - Page 1	10 to 40 years	15 to 30 years	$107,396	$29,184	$3,458		$33,806
BUILDING INTERIOR (CH) - Page 1	10 to 40 years	3 to 25 years	$202,849	$71,071	$12,455		$83,525
BUILDING SYSTEMS (CH) - Page 1	15 to 60 years	10 to 46 years	$15,500	$4,031	$869		$4,900
RECREATION ITEMS - Page 1	3 to 60 years	0 to 48 years	$281,447	$60,418	$10,914	$925	$70,407

2022 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 103 Projected Replacements included in the Haydens Crossing North Master Association Replacement Reserve Inventory has been assigned to one of the 5 categories listed in TABLE CM2 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $375,564 on January 1, 2022.
- Total reserve funding (including the Beginning Balance) of $841,539 from 2021 to 2022.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2022 being accomplished in 2022 at a cost of $7,948.

If any of these critical factors are inaccurate, do not use the data and please contact Miller+Dodson Associates to arrange for an update of the Replacement Reserve Study.

2022 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM2

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2022 BEGINNING BALANCE	2022 RESERVE FUNDING	2022 PROJECTED REPLACEMENTS	2022 END OF YEAR BALANCE
SITE IMPROVEMENTS - Page 1	5 to 80 years	0 to 64 years	$2,585,211	$857,082	$206,138	$6,588	$1,056,632
BUILDING EXTERIOR (CH) - Page 1	10 to 40 years	14 to 29 years	$107,396	$33,806	$3,458		$37,264
BUILDING INTERIOR (CH) - Page 1	10 to 40 years	2 to 24 years	$202,849	$83,525	$12,455		$95,980
BUILDING SYSTEMS (CH) - Page 1	15 to 60 years	9 to 45 years	$15,500	$4,900	$869		$5,768
RECREATION ITEMS - Page 1	3 to 60 years	0 to 47 years	$281,447	$70,407	$11,065	$1,360	$80,113

2023 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 103 Projected Replacements included in the Haydens Crossing North Master Association Replacement Reserve Inventory has been assigned to one of the 5 categories listed in TABLE CM3 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $601,601 on January 1, 2023.
- Total reserve funding (including the Beginning Balance) of $1,075,755 from 2022 to 2023.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2023 being accomplished in 2023 at a cost of $278,521.

If any of these critical factors are inaccurate, do not use the data and please contact Miller+Dodson Associates to arrange for an update of the Replacement Reserve Study.

2023 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM3

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2023 BEGINNING BALANCE	2023 RESERVE FUNDING	2023 PROJECTED REPLACEMENTS	2023 END OF YEAR BALANCE
SITE IMPROVEMENTS - Page 1	5 to 80 years	0 to 63 years	$2,585,211	$1,056,632	$206,220	$277,381	$985,472
BUILDING EXTERIOR (CH) - Page 1	10 to 40 years	13 to 28 years	$107,396	$37,264	$3,458		$40,722
BUILDING INTERIOR (CH) - Page 1	10 to 40 years	1 to 23 years	$202,849	$95,980	$12,455		$108,434
BUILDING SYSTEMS (CH) - Page 1	15 to 60 years	8 to 44 years	$15,500	$5,768	$869		$6,637
RECREATION ITEMS - Page 1	3 to 60 years	0 to 46 years	$281,447	$80,113	$11,215	$1,140	$90,188

TABLE CM4 below details the allocation of the $346,183 Beginning Balance, as reported by the Association and the $729,572 of Replacement Reserve Funding calculated by the Component Method from 2021 to 2023, to the 103 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made by Chronological Allocation, a method developed by Miller+Dodson Associates, Inc., and outlined on Page CF.1. The accuracy of the allocations is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $346,183 on January 1, 2021.
- Replacement Reserves on Deposit totaling $375,564 on January 1, 2022.
- Replacement Reserves on Deposit totaling $601,601 on January 1, 2023.
- Total Replacement Reserve funding (including the Beginning Balance) of $1,075,755 from 2021 to 2023.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory from 2021 to 2023 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of $518,459.

If any of these critical factors are inaccurate, do not use the data and please contact Miller+Dodson Associates, Inc., to arrange for an update of the Replacement Reserve Study.

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM4

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2021 Reserve Funding	2021 Projected Replacements	2021 End of Year Balance	2022 Reserve Funding	2022 Projected Replacements	2022 End of Year Balance	2023 Reserve Funding	2023 Projected Replacements	2023 End of Year Balance
	SITE IMPROVEMENTS -											
1	Asphalt, roads, alley mill & overlay,	229,438	190,433	39,004	(229,438)		11,472		11,472	11,472		22,944
2	Asphalt roads, alley seal coat,	30,045	14,963	5,028		19,990	5,028		25,018	5,028	(30,045)	
3	Asphalt roads, alley mill & overlay,	229,438	171,390	19,349		190,739	19,349		210,088	19,349	(229,438)	
4	Asphalt roads, alley, seal coat,	30,045	9,975	5,018		14,993	5,018		20,010	5,018		25,028
5	Asphalt roads, alley mill & overlay,	229,438	152,347	15,418		167,765	15,418		183,183	15,418		198,601
6	Asphalt roads, alley seal coat,	30,045	4,988	5,012		9,999	5,012		15,011	5,012		20,022
7	Asphalt roads, alley, mill & overlay,	229,438	133,303	13,733		147,037	13,733		160,770	13,733		174,504
8	Asphalt roads, alley, seal coat,	30,045	4,988	4,176		9,164	4,176		13,340	4,176		17,516
9	Asphalt parking, mill & overlay (CH)	3,804	1,578	202		1,781	202		1,983	202		2,185
10	Asphalt parking, seal coat (CH)	498	248	83		331	83		415	83	(498)	
11	Asphalt path, overlay	47,530	13,150	3,125		16,275	3,125		19,401	3,125		22,526
12	Pool deck, concrete (6%) (CH)	3,726	1,546	545		2,091	545		2,636	545		3,181
13	Concrete apron (6%)	6,588	4,557	1,016		5,572	1,016	(6,588)		1,098		1,098
14	Concrete curb & gutter, (6%)	47,215	6,531	5,812		12,343	5,812		18,155	5,812		23,967
15	Concrete curb & gutter, (6%) (CH)	746	309	109		418	109		527	109		636
16	Concrete sidewalks (6%)	108,500	45,027	15,868		60,896	15,868		76,764	15,868		92,632
17	Concrete sidewalks (6% (CH)	2,083	576	301		878	301		1,179	301		1,480
18	Concrete pavilion /mailbox /bench /	1,628	1,351	277	(1,628)		271		271	271		543
19	Wheel stops, concrete (CH)	1,600	664	85		749	85		834	85		919
20	Entrance monument, carved wood	1,760	876	126		1,003	126		1,129	126		1,255
21	Entrance monument, repoint	1,050	174	97		272	97		369	97		466
22	Retaining wall, stone, dry-layed	18,525	2,883	237		3,120	237		3,357	237		3,594
23	Flood light, ground mounted (CH)	780	453	82		535	82		617	82		698
24	Domestic water main (10%)	288,000	(239,040)	25,097			25,097		25,097	25,097		50,194
25	Domestic water laterals (10%)	204,120	(169,420)	17,788			17,788		17,788	17,788		35,575
26	Sanitary main (10%)	230,400	(191,232)	20,078			20,078		20,078	20,078		40,155
27	Sanitary laterals (10%)	178,448	(148,111)	15,550			15,550		15,550	15,550		31,101
28	Storm water pond dredging, (5	231,000	124,625	13,297		137,921	13,297		151,218	13,297		164,515
29	Aeration fountain, pump.	17,400	11,554	1,949		13,502	1,949		15,451	1,949	(17,400)	
30	Aeration fountain, pump.	5,800	481	532		1,013	532		1,545	532		2,077
31	Pond lights	1,080	448	105		554	105		659	105		764
32	Storm water management (10%	5,000	(4,150)	436			436		436	436		871
33	Mailbox, cluster (16 unit CBU)	99,000	23,477	2,905		26,382	2,905		29,287	2,905		32,191
34	Metal benches, 6'	14,850	3,081	256		3,337	256		3,593	256		3,849
35	Pump house, stone veneer, wood	8,900	2,462	307		2,769	307		3,075	307		3,382
36	Pavilion, wood trim w/ asphalt	13,500	3,735	315		4,050	315		4,365	315		4,680
37	Irrigation, controller (EM, CH)	3,750	1,245	358		1,603	358		1,961	358		2,319
	BUILDING EXTERIOR (CH) -											
38	Roofing, asphalt shingles (CH)	18,800	9,753	565		10,318	565		10,883	565		11,449
39	Gutter & downspouts, 6" aluminum	4,590	254	150		403	150		553	150		703
40	Siding & trim, pine board & batten,	36,500	8,079	1,236		9,314	1,236		10,550	1,236		11,786
41	Masonry (10% repointing	1,568	(1,301)	137			137		137	137		273
42	Window, stationary (CH)	9,518	3,950	265		4,215	265		4,480	265		4,745
43	Window, operating (CH)	21,780	4,519	557		5,076	557		5,633	557		6,190

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM4 (cont.)

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2021 Reserve Funding	2021 Projected Replacements	2021 End of Year Balance	2022 Reserve Funding	2022 Projected Replacements	2022 End of Year Balance	2023 Reserve Funding	2023 Projected Replacements	2023 End of Year Balance
44	Door, wood & glass (3' X 6'8")	2,500	581	101		682	101		783	101		884
45	Door, metal, flush (3' X 6'8") (CH)	1,920	637	80		718	80		798	80		878
46	Door, French, wood w/glass(6' X	7,620	2,108	262		2,371	262		2,633	262		2,896
47	Door transoms (CH)	2,600	604	105		709	105		814	105		919
	BUILDING INTERIOR (CH) -											
48	Flooring, carpet	7,202	4,185	754		4,939	754		5,693	754		6,448
49	Flooring, ceramic tile	24,750	4,109	983		5,091	983		6,074	983		7,057
50	Flooring, wood laminate, replace	6,975	1,158	342		1,500	342		1,842	342		2,184
51	Rubber flooring (1/2")	2,716	902	259		1,161	259		1,420	259		1,679
52	Stair railing, railing wood	2,444	761	65		825	65		890	65		955
53	Interior door, glass (1/2" door with	9,840	2,940	406		3,346	406		3,752	406		4,158
54	Interior fire door & frame, flush	2,460	1,062	108		1,169	108		1,277	108		1,384
55	Interior door & frame, wood,	10,780	3,579	450		4,029	450		4,479	450		4,929
56	Interior glass wall panels.	4,032	1,255	107		1,362	107		1,469	107		1,575
57	Interior glass windows	1,067	248	43		291	43		334	43		377
58	Security camera (IP)	840	139	78		217	78		295	78		373
59	Emergency lighting with exit sign	1,100	365	57		422	57		478	57		535
60	Interior lighting, general, recess	3,600	797	122		919	122		1,041	122		1,162
61	Interior lighting, med/large pendent	1,560	518	80		598	80		678	80		758
62	Interior lighting, small pendent	1,040	247	72		319	72		391	72		463
63	Plantation fan, ceiling mounted, no	4,080	1,774	210		1,983	210		2,193	210		2,403
64	Ceiling fan, no light (2)/ vanity wall	1,250	445	62		507	62		569	62		630
65	Wall tile, ceramic	16,500	5,478	689		6,167	689		6,856	689		7,545
66	Wall wood paneling / wainscoting	1,078	179	43		222	43		265	43		307
67	Furniture, sofa, chairs, game tables	15,000	5,336	1,074		6,410	1,074		7,483	1,074		8,557
68	Fireplace, gas log (direct vent)	3,800	1,652	195		1,847	195		2,043	195		2,238
69	Kitchen, residential appliances	3,450	1,500	177		1,677	177		1,854	177		2,032
70	Kitchen, residential, solid surface	7,200	2,561	221		2,782	221		3,003	221		3,224
71	Kitchen, residential cabinets	12,690	4,514	629		5,143	629		5,772	629		6,401
72	Restrooms,sinks, mirrors, toilets &	1,800	598	92		690	92		783	92		875
73	Treadmill	13,740	5,702	1,340		7,042	1,340		8,381	1,340		9,721
74	Elliptical trainer	13,160	5,461	1,283		6,745	1,283		8,028	1,283		9,311
75	Stepper	6,760	3,741	503		4,244	503		4,747	503		5,250
76	Vert. bench press	8,280	3,436	807		4,244	807		5,051	807		5,858
77	Bicep / Tricep	3,675	1,525	358		1,883	358		2,242	358		2,600
78	Abdominal	4,450	1,847	434		2,281	434		2,715	434		3,148
79	Free weight gym w/ 500 lb. plate	5,530	3,060	412		3,472	412		3,883	412		4,295
	BUILDING SYSTEMS (CH) -											
80	Building piping, allowance (CH)	3,100	600	53		654	53		707	53		760
81	AC split system, 2 ton (CH)	12,400	3,431	815		4,246	815		5,061	815		5,877
	RECREATION ITEMS -											
82	Swimming pool structure	166,500	27,639	2,834		30,473	2,834		33,307	2,834		36,141
83	Swimming pool, whitecoat	35,668	2,960	2,973		5,934	2,973		8,907	2,973		11,881
84	Swimming pool waterline tile (6x6)	2,204	915	215		1,129	215		1,344	215		1,559
85	Swimming pool coping, precast	6,048	2,510	322		2,831	322		3,153	322		3,475
86	Pool pump, 2HP	1,140	568	191		758	191		949	191	(1,140)	
87	Pool filter, Sand, 19"	780	216	51		267	51		318	51		370
88	Chemical feed pump	375	125	63		187	63		250	63		312
89	Pool furniture, chair, vinyl strap	6,000	1,992	573		2,565	573		3,137	573		3,710
90	Pool furniture, lounge, vinyl strap	8,750	2,905	835		3,740	835		4,575	835		5,410
91	Pool furniture, round table 36"	930	309	89		398	89		486	89		575
92	Pool furniture, umbrella (6)	1,740	722	145		868	145		1,013	145		1,158
93	Pool furniture, umbrella stand (40	288	120	24		144	24		168	24		192
94	Security camera and recorder	1,000	415	98		513	98		610	98		708
95	Perimeter fence, 6' decorative	15,406	3,836	321		4,157	321		4,479	321		4,800
96	Metal trash cans	800	166	14		180	14		194	14		207
97	Wood trellis, (2)	7,000	3,021	306		3,327	306		3,633	306		3,939
98	Tot lot, MP structure, 2 platforms &	13,250	6,598	950		7,549	950		8,499	950		9,449
99	Tot lot, A-frame swing, 2 seat	1,495	745	107		852	107		959	107		1,066
100	Tot lot surfacing, wood mulch 3"	1,360	752	304		1,056	304	(1,360)		453		453
101	Bike rack, 9 bikes	5,170	1,859	184		2,043	184		2,227	184		2,411
102	Volleyball court, sand (20%)	925	768	157	(925)		308		308	308		617
103	Volleyball court border, 6"PVS pipie	4,620	1,278	159		1,437	159		1,596	159		1,756

INTENTIONALLY LEFT BLANK

1. COMMON INTEREST DEVELOPMENTS - AN OVERVIEW

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

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

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

2. REPLACEMENT RESERVE STUDY

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

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

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

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

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

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

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

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

3. METHODS OF ANALYSIS

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

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

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

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

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

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

4. REPLACEMENT RESERVE STUDY DATA

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

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

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

5. DEFINITIONS

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

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

Cash Flow Analysis. See Cash Flow Method, above.

Component Analysis. See Component Method, above.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

What is a Reserve Study?
Who are we?



https://youtu.be/m4BcOE6q3Aw

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



https://youtu.be/40SodajTW1g

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



https://youtu.be/pYSMZO13VjQ

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



https://youtu.be/Qx8WHB9Cgnc

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



https://youtu.be/ZfBoAEhtf3E

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



https://youtu.be/1J2h7FIU3qw

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



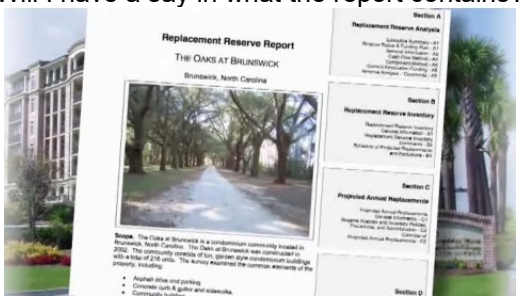
https://youtu.be/aARD1B1Oa3o

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



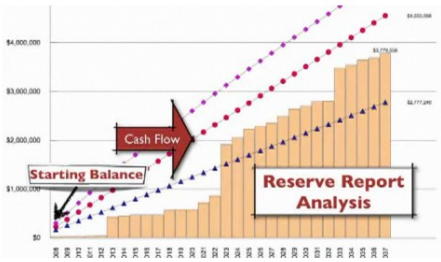
https://youtu.be/diZfM1IyJYU

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



https://youtu.be/qCeVJhFf9ag

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



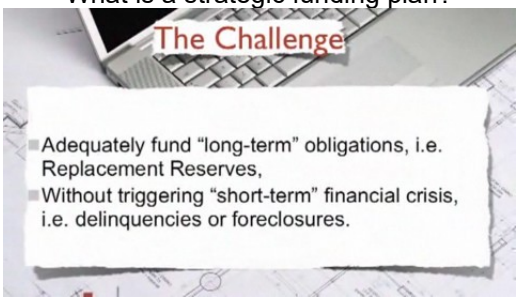
https://youtu.be/SePdwVDvHWI

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



https://youtu.be/W8CDLwRIv68

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



https://youtu.be/hIxV9X1tIcA