

FULL RESERVE STUDY

Caroline Oaks Homeowners Association, Inc.



Burke, Virginia

July 1, 2021



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Caroline Oaks Homeowners Association, Inc.
Burke, Virginia

Dear Board of Directors of Caroline Oaks Homeowners Association, Inc.:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of Caroline Oaks Homeowners Association, Inc. in Burke, Virginia and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, July 1, 2021.

This *Full Reserve Study* exceeds the Association of Professional Reserve Analysts (APRA) standards fulfilling the requirements of a "Level I Full Reserve Study."

An ongoing review by the Board and an Update of this Reserve Study are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. We recommend the Board budget for an Update to this Reserve Study in two- to three-years. We look forward to continuing to help Caroline Oaks Homeowners Association, Inc. plan for a successful future.

As part of our long-term thinking and everyday commitment to our clients, we are available to answer any questions you may have regarding this study.

Respectfully submitted on July 16, 2021 by

Reserve Advisors, LLC

Visual Inspection and Report by: Stephen E. Breski, RS¹ and Lisa Pham
Review by: Alan M. Ebert, RS, PRA², Director of Quality Assurance



¹ RS (Reserve Specialist) is the reserve provider professional designation of the Community Associations Institute (CAI) representing America's more than 300,000 condominium, cooperative and homeowners associations.

² PRA (Professional Reserve Analyst) is the professional designation of the Association of Professional Reserve Analysts. Learn more about APRA at <http://www.apra-usa.com>.



Long-term thinking. Everyday commitment.



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1. RESERVE STUDY EXECUTIVE SUMMARY

Client: Caroline Oaks Homeowners Association, Inc. (Caroline Oaks)

Location: Burke, Virginia

Reference: 210432

Property Basics: Caroline Oaks Homeowners Association, Inc. is responsible for the common elements shared by 106 single-family homes. The community was built in 1989.

Reserve Components Identified: 15 Reserve Components.

Inspection Date: July 1, 2021.

Funding Goal: The Funding Goal of this Reserve Study is to maintain reserves above an adequate, not excessive threshold during one or more years of significant expenditures. Our recommended Funding Plan recognizes this threshold funding year in 2038 due to repaving of asphalt streets.

Cash Flow Method: We use the Cash Flow Method to compute the Reserve Funding Plan. This method offsets future variable Reserve Expenditures with existing and future stable levels of reserve funding. Our application of this method also considers:

- Current and future local costs of replacement
- 2.0% average current annual rate of return on invested reserves
- 2.0% future Inflation Rate for estimating Future Replacement Costs

Sources for Local Costs of Replacement: Our proprietary database, historical costs and published sources, i.e., R.S. Means, Incorporated.

Unaudited Cash Status of Reserve Fund:

- \$144,279 as of March 31, 2021
- 2021 budgeted Reserve Contributions of \$29,000

Project Prioritization: We note anticipated Reserve Expenditures for the next 30 years in the **Reserve Expenditures** tables and include a **Five-Year Outlook** table following the **Reserve Funding Plan** in Section 3. We recommend the Association prioritize the following projects in the next five years based on the conditions identified:

- Crack repairs, patching, seal coat and striping of asphalt pavement
- Replacement of original mailbox stations
- Replacement of timber retaining walls
- Renovation of entrance monument

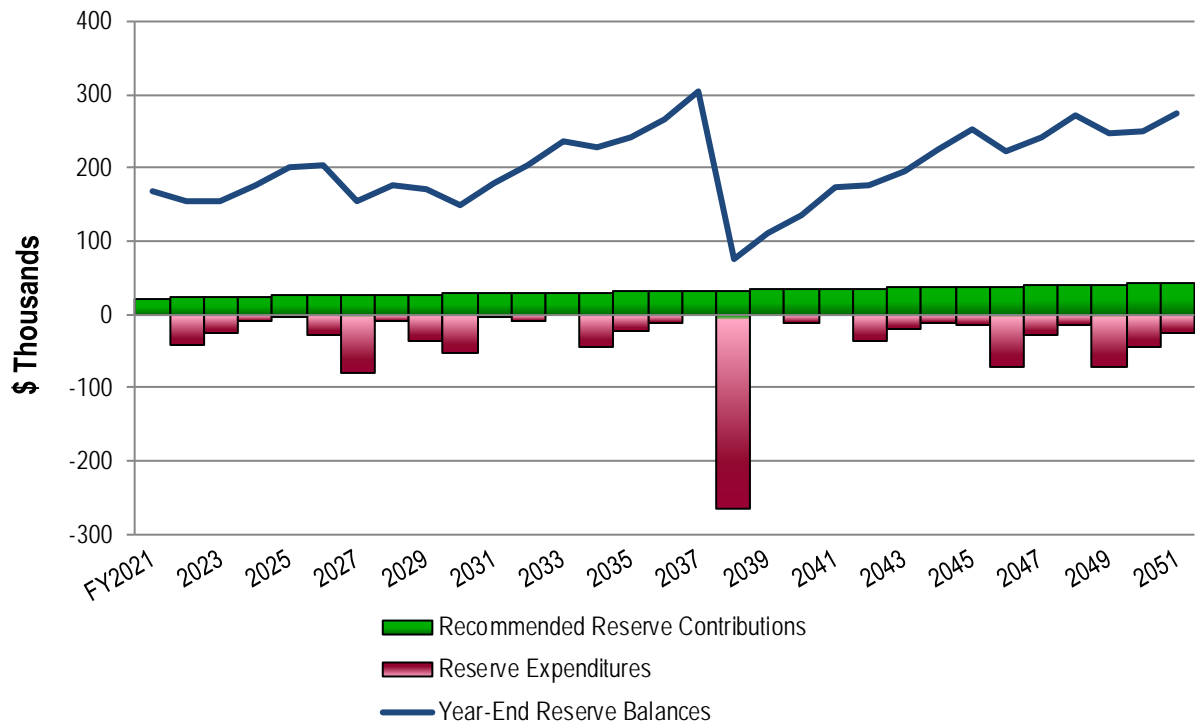
Recommended Reserve Funding: We recommend the following in order to achieve a stable and equitable Funding Plan:

- Reduced reserve budget of \$24,000 in 2022
- Inflationary increases through 2051, the limit of this study's Cash Flow Analysis
- 2022 Reserve Contribution of \$24,000 is equivalent to an average monthly contribution of \$18.87 per homeowner.



Caroline Oaks
Recommended Reserve Funding Table and Graph

| Year | Reserve Contributions (\$) | Reserve Balances (\$) | Year | Reserve Contributions (\$) | Reserve Balances (\$) | Year | Reserve Contributions (\$) | Reserve Balances (\$) |
|------|----------------------------|-----------------------|------|----------------------------|-----------------------|------|----------------------------|-----------------------|
| 2022 | 24,000 | 154,335 | 2032 | 29,300 | 202,290 | 2042 | 35,700 | 176,250 |
| 2023 | 24,500 | 155,597 | 2033 | 29,900 | 236,557 | 2043 | 36,400 | 195,322 |
| 2024 | 25,000 | 175,400 | 2034 | 30,500 | 226,864 | 2044 | 37,100 | 223,979 |
| 2025 | 25,500 | 200,965 | 2035 | 31,100 | 240,180 | 2045 | 37,800 | 251,389 |
| 2026 | 26,000 | 204,016 | 2036 | 31,700 | 266,151 | 2046 | 38,600 | 223,040 |
| 2027 | 26,500 | 154,008 | 2037 | 32,300 | 304,125 | 2047 | 39,400 | 240,275 |
| 2028 | 27,000 | 175,094 | 2038 | 32,900 | 75,456 | 2048 | 40,200 | 271,916 |
| 2029 | 27,500 | 170,532 | 2039 | 33,600 | 110,910 | 2049 | 41,000 | 247,574 |
| 2030 | 28,100 | 149,609 | 2040 | 34,300 | 136,013 | 2050 | 41,800 | 250,941 |
| 2031 | 28,700 | 179,142 | 2041 | 35,000 | 174,099 | 2051 | 42,600 | 274,130 |





2. RESERVE STUDY REPORT

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of

Caroline Oaks Homeowners Association, Inc.

Burke, Virginia

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, July 1, 2021.

We present our findings and recommendations in the following report sections and spreadsheets:

- **Identification of Property** - Segregates all property into several areas of responsibility for repair or replacement
- **Reserve Expenditures** - Identifies reserve components and related quantities, useful lives, remaining useful lives and future reserve expenditures during the next 30 years
- **Reserve Funding Plan** - Presents the recommended Reserve Contributions and year-end Reserve Balances for the next 30 years
- **Five-Year Outlook** - Identifies reserve components and anticipated reserve expenditures during the first five years
- **Reserve Component Detail** - Describes the reserve components, includes photographic documentation of the condition of various property elements, describes our recommendations for repairs or replacement, and includes detailed solutions and procedures for replacements for the benefit of current and future board members
- **Methodology** - Lists the national standards, methods and procedures used to develop the Reserve Study
- **Definitions** - Contains definitions of terms used in the Reserve Study, consistent with national standards
- **Professional Service Conditions** - Describes Assumptions and Professional Service Conditions
- **Credentials and Resources**

IDENTIFICATION OF PROPERTY



Our investigation includes Reserve Components or property elements as set forth in your Declaration. The Expenditure tables in Section 3 list the elements contained in this study. Our analysis begins by segregating the property elements into several areas of responsibility for repair and replacement.

Our process of identification helps assure that future boards and the management team understand whether reserves, the operating budget or Homeowners fund certain replacements and assists in preparation of the annual budget. We derive these segregated classes of property from our review of the information provided by the Association and through conversations with Management and the Board. These classes of property include:

- Reserve Components
- Long-Lived Property Elements
- Operating Budget Funded Repairs and Replacements
- Property Maintained by Homeowners
- Property Maintained by Others

We advise the Board conduct an annual review of these classes of property to confirm its policy concerning the manner of funding, i.e., from reserves or the operating budget. The Reserve Study identifies Reserve Components as set forth in your

Declaration or which were identified as part of your request for proposed services. Reserve Components are defined by CAI as property elements with:

- Caroline Oaks responsibility
- Limited useful life expectancies
- Predictable remaining useful life expectancies
- Replacement cost above a minimum threshold

Long-Lived Property Elements may not have predictable Remaining Useful Lives or their replacement may occur beyond the 30-year scope of the study. The operating budget should fund infrequent repairs. Funding untimely or unexpected replacements from reserves will necessitate increases to Reserve Contributions. Periodic updates of this Reserve Study will help determine the merits of adjusting the Reserve Funding Plan. We identify the following Long-Lived Property Elements as excluded from the 30-year Reserve Expenditures at this time.

- Electrical Systems, Common
- Inlet/Outlet Structures, Concrete, Storm Water Management System



Concrete inlet structure overview

- Pipes, Subsurface Utilities

The operating budget provides money for the repair and replacement of certain Reserve Components. The Association may develop independent criteria for use of operating and reserve funds. For purposes of calculating appropriate Reserve Contributions, we identify the following list of Operating Budget Funded Repairs and Replacements:

- General Maintenance to the Common Elements
- Expenditures less than \$3,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)

- Catch Basins, Landscape



Landscape catch basin overview

- Landscaping, General Maintenance
- Paint Finishes, Touch Up
- Signage, Miscellaneous
- Other Repairs normally funded through the Operating Budget

Certain items have been designated as the responsibility of the homeowners to repair or replace at their cost. Property Maintained by Homeowners, including items billed back to Homeowners, relates to unit:

- Driveways



Driveway overview

- Homes and Lots

Certain items have been designated as the responsibility of Others to repair or replace. Property Maintained by Others relates to:

- Street System, Glenbard Court (Virginia Department of Transportation)



Glenbard Court street system overview

- Walking Path (Municipality)



Walking path overview

3. RESERVE EXPENDITURES and FUNDING PLAN

The tables following this introduction present:

Reserve Expenditures

- Line item numbers
- Total quantities
- Quantities replaced per phase (in a single year)
- Reserve component inventory
- Estimated first year of event (i.e., replacement, application, etc.)
- Life analysis showing
 - useful life
 - remaining useful life
- 2021 local cost of replacement
 - Per unit
 - Per phase
 - Replacement of total quantity
- Percentage of future expenditures anticipated during the next 30 years
- Schedule of estimated future costs for each reserve component including inflation

Reserve Funding Plan

- Reserves at the beginning of each year
- Total recommended reserve contributions
- Estimated interest earned from invested reserves
- Anticipated expenditures by year
- Anticipated reserves at year end

Five-Year Outlook

- Line item numbers
- Reserve component inventory of only the expenditures anticipated to occur within the first five years
- Schedule of estimated future costs for each reserve component anticipated to occur within the first five years

The purpose of a Reserve Study is to provide an opinion of reasonable annual Reserve Contributions. Prediction of exact timing and costs of minor Reserve Expenditures typically will not significantly affect the 30-year cash flow analysis. Adjustments to the times and/or costs of expenditures may not always result in an adjustment in the recommended Reserve Contributions.

Financial statements prepared by your association, by you or others might rely in part on information contained in this section. For your convenience, we have provided an electronic data file containing the tables of ***Reserve Expenditures*** and ***Reserve Funding Plan***.

RESERVE EXPENDITURES

**Caroline Oaks
Homeowners Association, Inc.**
Burke, Virginia

Explanatory Notes:

- 1) **2.0%** is the estimated Inflation Rate for estimating Future Replacement Costs.
- 2) FY2021 is Fiscal Year beginning January 1, 2021 and ending December 31, 2021.

| Line Item | Total Quantity | Per Phase Quantity | Units | Reserve Component Inventory | Estimated 1st Year of Event | Life Analysis, Years | | Costs, \$ | | | Percentage of Future Expenditures | RUL = 0 | | | | | | | | | | | | | | | |
|--|----------------|--------------------|--------------|---|-----------------------------|----------------------|-----------|-------------|------------------|--------------|-----------------------------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| | | | | | | Useful | Remaining | Unit (2021) | Per Phase (2021) | Total (2021) | | FY2021 | 1 2022 | 2 2023 | 3 2024 | 4 2025 | 5 2026 | 6 2027 | 7 2028 | 8 2029 | 9 2030 | 10 2031 | 11 2032 | 12 2033 | 13 2034 | 14 2035 | 15 2036 |
| Property Site Elements | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.020 | 8,650 | 8,650 | Square Yards | Asphalt Pavement, Crack Repair, Patch, Seal Coat and Striping | 2022 | 3 to 5 | 1 | 1.90 | 16,435 | 16,435 | 15.9% | | 16,764 | | | | 18,146 | | | 19,641 | | | | 21,260 | | | |
| 4.040 | 8,650 | 8,650 | Square Yards | Asphalt Pavement, Mill and Overlay | 2038 | 15 to 20 | 17 | 15.00 | 129,750 | 129,750 | 18.4% | | | | | | | | | | | | | | | | |
| 4.100 | 8 | 8 | Each | Catch Basins, Inspections and Capital Repairs | 2038 | 15 to 20 | 17 | 900.00 | 7,200 | 7,200 | 1.0% | | | | | | | | | | | | | | | | |
| 4.110 | 5,500 | 550 | Linear Feet | Concrete Curbs and Gutters, Partial | 2030 | to 65 | 9 to 30+ | 35.00 | 19,250 | 192,500 | 8.3% | | | | | | | | | 23,006 | | | | | | | |
| 4.140 | 18,100 | 1,360 | Square Feet | Concrete Sidewalks, Partial | 2027 | to 65 | 6 to 30+ | 10.00 | 13,600 | 181,000 | 8.0% | | | | | | 15,316 | | | | | | | 17,945 | | | |
| 4.285 | 1,010 | 1,010 | Linear Feet | Fences, Wood | 2029 | 15 to 20 | 8 | 30.00 | 30,300 | 30,300 | 8.9% | | | | | | | | 35,501 | | | | | | | | |
| 4.500 | 1 | 1 | Allowance | Landscape, Partial Replacements | 2022 | to 2 | 1 | 8,000.00 | 8,000 | 8,000 | 16.6% | | 8,160 | 8,490 | | 8,833 | | 9,189 | | 9,561 | | 9,947 | | 10,349 | 10,767 | | |
| 4.560 | 25 | 25 | Each | Light Poles and Fixtures, Replacement | 2027 | to 25 | 6 | 2,300.00 | 57,500 | 57,500 | 6.6% | | | | | | 64,754 | | | | | | | | | | |
| 4.561 | 1 | 1 | Allowance | Light Poles and Fixtures, Supply Trenches, Partial Replacements | 2034 | to 15 | 13 | 10,200.00 | 10,200 | 10,200 | 3.1% | | | | | | | | | | | | | 13,195 | | | |
| 4.600 | 8 | 8 | Each | Mailbox Stations (Original) | 2022 | to 25 | 1 | 2,000.00 | 16,000 | 16,000 | 4.4% | | 16,320 | | | | | | | | | | | | | | |
| 4.601 | 1 | 1 | Each | Mailbox Station (Replaced in 2006) | 2031 | to 25 | 10 | 2,000.00 | 2,000 | 2,000 | 0.2% | | | | | | | | | 2,438 | | | | | | | |
| 4.602 | 3 | 3 | Each | Mailbox Stations (Replaced in 2020) | 2045 | to 25 | 24 | 2,000.00 | 6,000 | 6,000 | 1.0% | | | | | | | | | | | | | | | | |
| 4.750 | 340 | 340 | Square Feet | Retaining Walls, Stone, Partial Replacements | 2025 | 10 to 15 | 4 | 10.00 | 3,400 | 3,400 | 1.4% | | | | 3,680 | | | | | | | | | 4,486 | | | |
| 4.760 | 270 | 270 | Square Feet | Retaining Walls, Timber, Replacement | 2023 | 15 to 20 | 2 | 80.00 | 21,600 | 21,600 | 5.3% | | | 22,473 | | | | | | | | | | | | | |
| 4.800 | 1 | 1 | Allowance | Signage, Entrance Monument, Renovation | 2023 | 15 to 20 | 2 | 3,700.00 | 3,700 | 3,700 | 0.9% | | | 3,849 | | | | | | | | | | | | | |
| Anticipated Expenditures, By Year (\$987,504 over 30 years) | | | | | | | | | | | | 0 | 41,244 | 26,322 | 8,490 | 3,680 | 26,979 | 80,070 | 9,189 | 35,501 | 52,208 | 2,438 | 9,947 | 0 | 44,804 | 22,431 | 10,767 |

RESERVE EXPENDITURES

**Caroline Oaks
Homeowners Association, Inc.**
Burke, Virginia

| Line Item | Total Quantity | Per Phase Quantity | Units | Reserve Component Inventory | Estimated 1st Year of Event | Life Analysis, Years | | Costs, \$ | | | Percentage of Future Expenditures | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | |
|--|----------------|--------------------|--------------|---|-----------------------------|----------------------|-----------|-------------|------------------|--------------|-----------------------------------|------|---------|------|--------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| | | | | | | Useful | Remaining | Unit (2021) | Per Phase (2021) | Total (2021) | | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | |
| Property Site Elements | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.020 | 8,650 | 8,650 | Square Yards | Asphalt Pavement, Crack Repair, Patch, Seal Coat and Striping | 2022 | 3 to 5 | 1 | 1.90 | 16,435 | 16,435 | 15.9% | | | | | | 24,910 | | | 26,963 | | | | | 29,186 | | |
| 4.040 | 8,650 | 8,650 | Square Yards | Asphalt Pavement, Mill and Overlay | 2038 | 15 to 20 | 17 | 15.00 | 129,750 | 129,750 | 18.4% | | 181,681 | | | | | | | | | | | | | | |
| 4.100 | 8 | 8 | Each | Catch Basins, Inspections and Capital Repairs | 2038 | 15 to 20 | 17 | 900.00 | 7,200 | 7,200 | 1.0% | | 10,082 | | | | | | | | | | | | | | |
| 4.110 | 5,500 | 550 | Linear Feet | Concrete Curbs and Gutters, Partial | 2030 | to 65 | 9 to 30+ | 35.00 | 19,250 | 192,500 | 8.3% | | 26,955 | | | | | | | 31,582 | | | | | | | |
| 4.140 | 18,100 | 1,360 | Square Feet | Concrete Sidewalks, Partial | 2027 | to 65 | 6 to 30+ | 10.00 | 13,600 | 181,000 | 8.0% | | | | | | 21,025 | | | | | | | | | 24,635 | |
| 4.285 | 1,010 | 1,010 | Linear Feet | Fences, Wood | 2029 | 15 to 20 | 8 | 30.00 | 30,300 | 30,300 | 8.9% | | | | | | | | | | | | | 52,753 | | | |
| 4.500 | 1 | 1 | Allowance | Landscape, Partial Replacements | 2022 | to 2 | 1 | 8,000.00 | 8,000 | 8,000 | 16.6% | | 11,202 | | 11,654 | | 12,125 | | 12,615 | | 13,125 | | 13,655 | | | 14,207 | |
| 4.560 | 25 | 25 | Each | Light Poles and Fixtures, Replacement | 2027 | to 25 | 6 | 2,300.00 | 57,500 | 57,500 | 6.6% | | | | | | | | | | | | | | | | |
| 4.561 | 1 | 1 | Allowance | Light Poles and Fixtures, Supply Trenches, Partial Replacements | 2034 | to 15 | 13 | 10,200.00 | 10,200 | 10,200 | 3.1% | | | | | | | | | | | | | | 17,758 | | |
| 4.600 | 8 | 8 | Each | Mailbox Stations (Original) | 2022 | to 25 | 1 | 2,000.00 | 16,000 | 16,000 | 4.4% | | | | | | | | | | | | | | 26,775 | | |
| 4.601 | 1 | 1 | Each | Mailbox Station (Replaced in 2006) | 2031 | to 25 | 10 | 2,000.00 | 2,000 | 2,000 | 0.2% | | | | | | | | | | | | | | | | |
| 4.602 | 3 | 3 | Each | Mailbox Stations (Replaced in 2020) | 2045 | to 25 | 24 | 2,000.00 | 6,000 | 6,000 | 1.0% | | | | | | | | | | 9,651 | | | | | | |
| 4.750 | 340 | 340 | Square Feet | Retaining Walls, Stone, Partial Replacements | 2025 | 10 to 15 | 4 | 10.00 | 3,400 | 3,400 | 1.4% | | | | | | | | | | 5,469 | | | | | | |
| 4.760 | 270 | 270 | Square Feet | Retaining Walls, Timber, Replacement | 2023 | 15 to 20 | 2 | 80.00 | 21,600 | 21,600 | 5.3% | | 30,245 | | | | | | | | | | | | | | |
| 4.800 | 1 | 1 | Allowance | Signage, Entrance Monument, Renovation | 2023 | 15 to 20 | 2 | 3,700.00 | 3,700 | 3,700 | 0.9% | | 5,181 | | | | | | | | | | | | | | |
| Anticipated Expenditures, By Year (\$987,504 over 30 years) | | | | | | | | | | | | 0 | 265,346 | 0 | 11,654 | 0 | 37,035 | 21,025 | 12,615 | 15,120 | 71,670 | 26,775 | 13,655 | 70,511 | 43,393 | 24,635 | |

RESERVE FUNDING PLAN

CASH FLOW ANALYSIS

Caroline Oaks
Homeowners Association, Inc.
Burke, Virginia

Individual Reserve Budgets & Cash Flows for the Next 30 Years

| | | FY2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 |
|---|----------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Reserves at Beginning of Year | (Note 1) | 144,279 | 168,368 | 154,335 | 155,597 | 175,400 | 200,965 | 204,016 | 154,008 | 175,094 | 170,532 | 149,609 | 179,142 | 202,290 | 236,557 | 226,864 | 240,180 |
| Total Recommended Reserve Contributions | (Note 2) | 21,750 | 24,000 | 24,500 | 25,000 | 25,500 | 26,000 | 26,500 | 27,000 | 27,500 | 28,100 | 28,700 | 29,300 | 29,900 | 30,500 | 31,100 | 31,700 |
| Estimated Interest Earned, During Year | (Note 3) | 2,339 | 3,211 | 3,084 | 3,293 | 3,745 | 4,030 | 3,562 | 3,275 | 3,439 | 3,185 | 3,271 | 3,795 | 4,367 | 4,611 | 4,647 | 5,038 |
| Anticipated Expenditures, By Year | | 0 | (41,244) | (26,322) | (8,490) | (3,680) | (26,979) | (80,070) | (9,189) | (35,501) | (52,208) | (2,438) | (9,947) | 0 | (44,804) | (22,431) | (10,767) |
| Anticipated Reserves at Year End | | <u>\$168,368</u> | <u>\$154,335</u> | <u>\$155,597</u> | <u>\$175,400</u> | <u>\$200,965</u> | <u>\$204,016</u> | <u>\$154,008</u> | <u>\$175,094</u> | <u>\$170,532</u> | <u>\$149,609</u> | <u>\$179,142</u> | <u>\$202,290</u> | <u>\$236,557</u> | <u>\$226,864</u> | <u>\$240,180</u> | <u>\$266,151</u> |

(continued)

Individual Reserve Budgets & Cash Flows for the Next 30 Years, Continued

| | | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 |
|---|--|------------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Reserves at Beginning of Year | | 266,151 | 304,125 | 75,456 | 110,910 | 136,013 | 174,099 | 176,250 | 195,322 | 223,979 | 251,389 | 223,040 | 240,275 | 271,916 | 247,574 | 250,941 |
| Total Recommended Reserve Contributions | | 32,300 | 32,900 | 33,600 | 34,300 | 35,000 | 35,700 | 36,400 | 37,100 | 37,800 | 38,600 | 39,400 | 40,200 | 41,000 | 41,800 | 42,600 |
| Estimated Interest Earned, During Year | | 5,674 | 3,777 | 1,854 | 2,457 | 3,086 | 3,486 | 3,697 | 4,172 | 4,730 | 4,721 | 4,610 | 5,096 | 5,169 | 4,960 | 5,224 |
| Anticipated Expenditures, By Year | | 0 | (265,346) | 0 | (11,654) | 0 | (37,035) | (21,025) | (12,615) | (15,120) | (71,670) | (26,775) | (13,655) | (70,511) | (43,393) | (24,635) |
| Anticipated Reserves at Year End | | <u>\$304,125</u> | <u>\$75,456</u> | <u>\$110,910</u> | <u>\$136,013</u> | <u>\$174,099</u> | <u>\$176,250</u> | <u>\$195,322</u> | <u>\$223,979</u> | <u>\$251,389</u> | <u>\$223,040</u> | <u>\$240,275</u> | <u>\$271,916</u> | <u>\$247,574</u> | <u>\$250,941</u> | <u>\$274,130</u> |

(NOTE 5)

(NOTE 4)

Explanatory Notes:

- 1) Year 2021 starting reserves are as of March 31, 2021; FY2021 starts January 1, 2021 and ends December 31, 2021.
- 2) Reserve Contributions for 2021 are the remaining budgeted 9 months; 2022 is the first year of recommended contributions.
- 3) 2.0% is the estimated annual rate of return on invested reserves; 2021 is a partial year of interest earned.
- 4) Accumulated year 2051 ending reserves consider the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Year (reserve balance at critical point).

FIVE-YEAR OUTLOOK**Caroline Oaks
Homeowners Association, Inc.**
Burke, Virginia

| Line Item | Reserve Component Inventory | RUL = 0 FY2021 | 1 2022 | 2 2023 | 3 2024 | 4 2025 | 5 2026 |
|--|---|-------------------|-----------|-----------|-----------|-----------|-----------|
| <u>Property Site Elements</u> | | | | | | | |
| 4.020 | Asphalt Pavement, Crack Repair, Patch, Seal Coat and Striping | | 16,764 | | | | 18,146 |
| 4.500 | Landscape, Partial Replacements | | 8,160 | | 8,490 | | 8,833 |
| 4.600 | Mailbox Stations (Original) | | 16,320 | | | | |
| 4.750 | Retaining Walls, Stone, Partial Replacements | | | | | 3,680 | |
| 4.760 | Retaining Walls, Timber, Replacement | | | 22,473 | | | |
| 4.800 | Signage, Entrance Monument, Renovation | | | 3,849 | | | |
| Anticipated Expenditures, By Year (\$987,504 over 30 years) | | 0 | 41,244 | 26,322 | 8,490 | 3,680 | 26,979 |

4. RESERVE COMPONENT DETAIL

The Reserve Component Detail of this *Full Reserve Study* includes enhanced solutions and procedures for select significant components. This section describes the Reserve Components, documents specific problems and condition assessments, and may include detailed solutions and procedures for necessary capital repairs and replacements for the benefit of current and future board members. We advise the Board use this information to help define the scope and procedures for repair or replacement when soliciting bids or proposals from contractors. *However, the Report in whole or part is not and should not be used as a design specification or design engineering service.*

Property Site Elements

Asphalt Pavement, Crack Repair, Patch, Seal Coat and Striping

Line Item: 4.020

Quantity: Approximately 8,650 square yards of asphalt pavement comprising the streets and parking areas

History: Repaved in 2017 through 2018

Condition: Good overall

Useful Life: Three- to five-years

Component Detail Notes: Proposals for seal coat applications should include crack repairs and patching. The contractor should only apply seal coat applications after repairs are completed. A seal coat does not bridge or close cracks, therefore, unrepaired cracks render the seal coat applications useless.

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost includes an allowance for crack repairs and patching of up to two percent (2%) of the pavement.

Asphalt Pavement, Repaving

Line Item: 4.045

Quantity: Approximately 8,650 square yards of asphalt pavement comprising the streets and parking areas

History: Repaved in 2017 through 2018

Condition: Good overall



Asphalt pavement overview



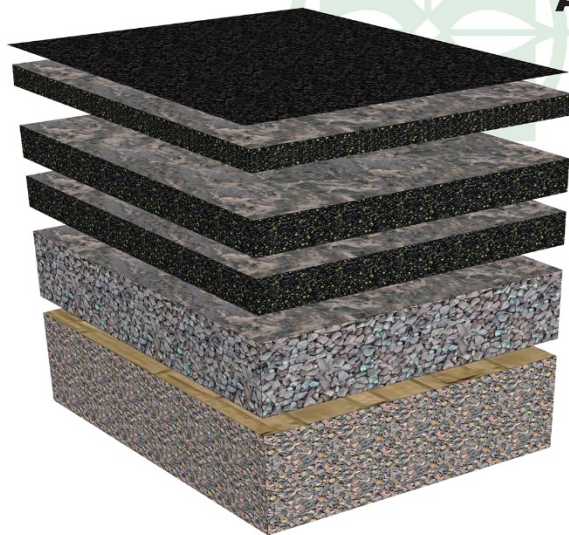
Asphalt pavement overview



Asphalt pavement and speed bump overview

Useful Life: 15- to 20-years with the benefit of timely crack repairs and patching

Component Detail Notes: The initial installation of asphalt uses at least two lifts, or two separate applications of asphalt, over the base course. The first lift is the binder course. The second lift is the wearing course. The wearing course comprises a finer aggregate for a smoother more watertight finish. The following diagram depicts the typical components although it may not reflect the actual configuration at Caroline Oaks:



ASPHALT DIAGRAM

Sealcoat or Wearing Surface

Asphalt Overlay Not to Exceed 1.5 inch Thickness per Lift or Layer

Original Pavement Inspected and milled until sound pavement is found, usually comprised of two layers

Compacted Crushed Stone or Aggregate Base

Subbase of Undisturbed Native Soils Compacted to 95% dry density

© Reserve Advisors

The manner of repaving is either a mill and overlay or total replacement. A mill and overlay is a method of repaving where cracked, worn and failed pavement is mechanically removed or milled until sound pavement is found. A new layer of asphalt is overlaid atop the remaining base course of pavement. Total replacement includes the removal of all existing asphalt down to the base course of aggregate and native soil followed by the application of two or more new lifts of asphalt. We recommend mill and overlayment on asphalt pavement that exhibits normal deterioration and wear. We recommend total replacement of asphalt pavement that exhibits severe deterioration, inadequate drainage, pavement that has been overlaid multiple times in the past or where the configuration makes overlayment not possible. Based on the apparent visual condition and configuration of the asphalt pavement, we recommend the total replacement method for initial repaving followed by the mill and overlay method for subsequent repaving at Caroline Oaks.

Preventative Maintenance Notes: We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
 - Inspect for settlement, large cracks and trip hazards, and ensure proper drainage
 - Repair areas which could cause vehicular damage such as potholes
- As needed:
 - Perform crack repairs and patching as needed

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost for milling and overlayment includes an allowance for replacement of the speed bumps and area patching of up to ten percent (10%).

Catch Basins

Line Item: 4.100

Quantity: Eight catch basins¹

History: Original

Condition: Good overall



Catch basin overview

Useful Life: The useful life of catch basins is up to 65 years. However, achieving this useful life usually requires interim capital repairs or partial replacements every 15- to 20-years.

Component Detail Notes: Erosion causes settlement around the collar of catch basins. Left unrepaired, the entire catch basin will shift and need replacement.

Preventative Maintenance Notes: We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
 - Inspect and repair any settlement and collar cracks
 - Ensure proper drainage and inlets are free of debris
 - If property drainage is not adequate in heavy rainfall events, typically bi-annual cleaning of the catch basins is recommended

¹ We utilize the terminology catch basin to refer to all storm water collection structures including curb inlets.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association plan for inspections and capital repairs to the catch basins in conjunction with repaving.

Concrete Curbs and Gutters

Line Item: 4.110

Quantity: Approximately 5,500 linear feet

Condition: Good overall with isolated cracks and minor spalled concrete



Concrete curb and gutter overview



Cracked concrete curb and gutter



Minor spalled concrete gutter

Useful Life: Up to 65 years although interim deterioration of areas is common

Preventative Maintenance Notes: We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
 - Inspect and repair major cracks, spalls and trip hazards
 - Mark with orange safety paint prior to replacement or repair
 - Repair or perform concrete leveling in areas in immediate need of repair or possible safety hazard

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We estimate that up to 1,650 linear feet of curbs and gutters, or thirty percent (30%) of the total, will require replacement during the next 30 years.

Concrete Sidewalks

Line Item: 4.140

Quantity: Approximately 18,100 square feet. This quantity includes the concrete apron extensions.

Condition: Good overall with isolated cracks and trip hazards



Concrete sidewalk overview



Isolated concrete sidewalk crack



Concrete sidewalk crack



Trip hazard

Useful Life: Up to 65 years although interim deterioration of areas is common

Preventative Maintenance Notes: We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
 - Inspect and repair major cracks, spalls and trip hazards
 - Mark with orange safety paint prior to replacement or repair
 - Repair or perform concrete leveling in areas in immediate need of repair or possible safety hazard

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We estimate that up to 5,440 square feet of concrete sidewalks, or thirty percent (30%) of the total, will require replacement during the next 30 years.

Fences, Wood

Line Item: 4.285

Quantity: 1,010 linear feet located at the north perimeter and around the farm

History: Original

Condition: Good to fair overall condition with minor damage and deterioration evident



Wood fence overview



Damage to wood fence



Wood deterioration

Useful Life: 15- to 20-years

Preventative Maintenance Notes: We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
 - Inspect and repair loose sections, finish deterioration and damage
 - Repair leaning sections and clear vegetation from fence areas which could cause damage

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The Association should anticipate periodic partial replacements due to the non-uniform nature of wood deterioration.

Landscape

Line Item: 4.500

Component Detail Notes: The Association contains a large quantity of trees, shrubbery and other landscape elements. Replacement of these elements is an ongoing need. Many associations budget for these replacements as normal maintenance. Other associations fund ongoing replacements from reserves. Large amounts of landscape may need replacement due to disease, drought or other forces of nature. If the cost of removal and replacement is substantial, funding from reserves is logical. The Association may also desire to periodically update the appearance of the community through major improvements to the landscape.

Useful Life: At the request of Management and the Board, we include a landscape allowance for partial replacements every two years.

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

Light Poles and Fixtures

Line Items: 4.560 and 4.561

Quantity: 25 metal poles with light fixtures are supplied by 18 electrical trenches

History: The light poles and fixtures were installed in 1995 with four electrical trenches replaced in the last two years

Condition: The light poles and fixtures are in fair overall condition with finish deterioration. The electrical trenches are reported in satisfactory condition.



Light pole and fixture overview – Note: finish deterioration

Useful Life: Replacement of the light poles and fixtures every 25 years with partial replacements of the electrical trenches every 15 years

Preventative Maintenance Notes: We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- As-needed:
 - Inspect and repair broken or dislodged fixtures, and leaning or damaged poles
 - Replaced burned out bulbs as needed

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate of cost for the electrical trench replacements is based on information provided to us by the Association.

Mailbox Stations

Line Items: 4.600, 4.601 and 4.602

Quantity: 12 stations

History: Eight of the stations are original, one station was replaced in 2006 and three stations were replaced in 2020.

Condition: The stations replaced in 2020 are in good condition, the station replaced in 2006 is in good to fair condition and the original stations are in fair to poor condition with rust and finish deterioration evident.



Mailbox station overview – Note: original station



Finish deterioration and rust – Note: original station



Mailbox station rust – Note: original station



Mailbox station overview – Note: replaced in 2006



Mailbox station overview – Note: replaced in 2020

Useful Life: Up to 25 years

Preventative Maintenance Notes: We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- As-needed:
 - Inspect and repair damage, vandalism, and finish deterioration
 - Verify posts are anchored properly

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

Retaining Walls, Stone

Line Item: 4.755

Quantity: Approximately 340 square feet comprising the two stone retaining walls near the center of the community

History: Unknown ages

Condition: Good to fair overall



Landscape stone retaining wall overview



Stone displacement and minor bulging



Landscape stone retaining wall overview

Useful Life: Up to 35 years

Preventative Maintenance Notes: We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
 - Inspect and repair leaning sections or damaged areas
 - Water stains which may indicate possible blocked drainage should be investigated further
 - Inspect and repair erosion at the wall base and backside

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

Retaining Walls, Timber

Line Item: 4.760

Quantity: 270 square feet comprising three retaining walls; two at the end of Peter Roy Court and one near 9433 William Kirk Lane

History: Varied unknown ages

Condition: Fair overall with wood rot and damage evident



Timber retaining wall at Peter Roy Court overview – Note: wood rot and damage



Timber retaining wall at Peter Roy Court overview – Note: wood rot



Timber retaining wall at Peter Roy Court overview



Timber retaining wall near 9433 William Kirk Lane overview

Useful Life: 15- to 20-years

Component Detail Notes: We advise Caroline Oaks replace with a modular, interlocking dry-set masonry retaining wall system. The cost of dry-set masonry retaining walls is similar to the cost of timber walls. However, dry-set masonry retaining walls offer a longer useful life of up to 35 years and lower total maintenance costs.

Preventative Maintenance Notes: We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
 - Inspect and repair leaning sections or damaged areas
 - Inspect and repair erosion at the wall base and backside

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

Signage, Entrance Monument

Line Item: 4.800

Quantity: One property identification sign. The signage includes the following elements:

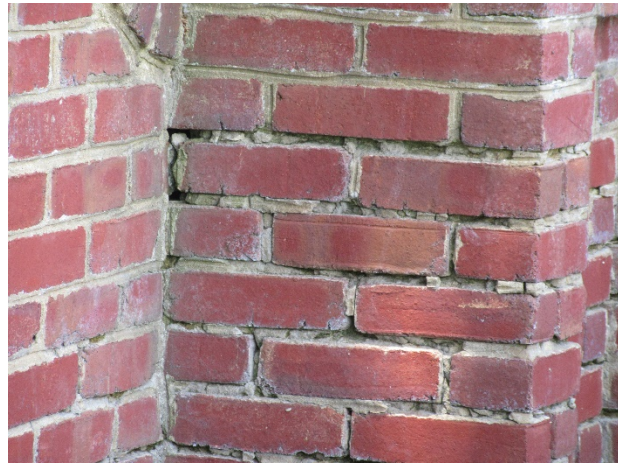
- Landscape
- Light fixtures
- Masonry, brick
- Sign, concrete

History: Original

Condition: Fair to poor overall with mortar deterioration, efflorescence, step cracks and damage evident



Entrance monument overview



Mortar deterioration and efflorescence



Mortar deterioration and efflorescence



Step cracking



Damaged section

Useful Life: 15- to 20-years

Component Detail Notes: Community signage contributes to the overall aesthetic appearance of the property to owners and potential buyers. Renovation or replacement of community signs is often predicated upon the desire to "update" the perceived identity of the community rather than for utilitarian concerns. Therefore, the specific times for replacement or renovation are discretionary.

Preventative Maintenance Notes: We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
 - Inspect and repair damage, vandalism and loose components
 - Verify lighting is working properly
 - Touch-up paint finish applications if applicable

Priority/Criticality: Per Board discretion



Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost for renovation includes repointing and repairs to the masonry, repairs to the concrete sign, landscaping as needed and replacement of the light fixtures.

Reserve Study Update

An ongoing review by the Board and an Update of this Reserve Study are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. Many variables change after the study is conducted that may result in significant overfunding or underfunding the reserve account. Variables that may affect the Reserve Funding Plan include, but are not limited to:

- Deferred or accelerated capital projects based on Board discretion
- Changes in the interest rates on reserve investments
- Changes in the *local* construction inflation rate
- Additions and deletions to the Reserve Component Inventory
- The presence or absence of maintenance programs
- Unusually mild or extreme weather conditions
- Technological advancements

Periodic updates incorporate these variable changes since the last Reserve Study or Update. We recommend the Board budget for an Update to this Reserve Study in two- to three-years. Budgeting for an Update demonstrates the Board's objective to continue fulfilling its fiduciary responsibility to maintain the commonly owned property and to fund reserves appropriately.

5.METHODOLOGY

Reserves for replacement are the amounts of money required for future expenditures to repair or replace Reserve Components that wear out before the entire facility or project wears out. Reserving funds for future repair or replacement of the Reserve Components is also one of the most reliable ways of protecting the value of the property's infrastructure and marketability.

Caroline Oaks can fund capital repairs and replacements in any combination of the following:

1. Increases in the operating budget during years when the shortages occur
2. Loans using borrowed capital for major replacement projects
3. Level monthly reserve assessments annually adjusted upward for inflation to increase reserves to fund the expected major future expenditures
4. Special assessments

We do not advocate special assessments or loans unless near term circumstances dictate otherwise. Although loans provide a gradual method of funding a replacement, the costs are higher than if the Association were to accumulate reserves ahead of the actual replacement. Interest earnings on reserves also accumulate in this process of saving or reserving for future replacements, thereby defraying the amount of gradual reserve collections. We advocate the third method of *Level Monthly Reserve Assessments* with relatively minor annual adjustments. The method ensures that Homeowners pay their "fair share" of the weathering and aging of the commonly owned property each year. Level reserve assessments preserve the property and enhance the resale value of the homes.

This Reserve Study is in compliance with and exceeds the National standards¹ set forth by the Association of Professional Reserve Analysts (APRA) fulfilling the requirements of a "Level I Full Reserve Study." These standards require a Reserve Component to have a "predictable remaining Useful Life." Estimating Remaining Useful Lives and Reserve Expenditures beyond 30 years is often indeterminate. Long-Lived Property Elements are necessarily excluded from this analysis. We considered the following factors in our analysis:

- The Cash Flow Method to compute, project and illustrate the 30-year Reserve Funding Plan
- Local² costs of material, equipment and labor
- Current and future costs of replacement for the Reserve Components
- Costs of demolition as part of the cost of replacement
- Local economic conditions and a historical perspective to arrive at our estimate of long-term future inflation for construction costs in Burke, Virginia at an annual inflation rate³. Isolated or regional markets of greater

¹ Identified in the APRA "Standards - Terms and Definitions" and the CAI "Terms and Definitions".

² See Credentials for additional information on our use of published sources of cost data.

³ Derived from Marshall & Swift, historical costs and the Bureau of Labor Statistics.

construction (development) activity may experience slightly greater rates of inflation for both construction materials and labor.

- The past and current maintenance practices of Caroline Oaks and their effects on remaining useful lives
- Financial information provided by the Association pertaining to the cash status of the reserve fund and budgeted reserve contribution
- The anticipated effects of appreciation of the reserves over time in accord with a return or yield on investment of your cash equivalent assets. (We did not consider the costs, if any, of Federal and State Taxes on income derived from interest and/or dividend income).
- The Funding Plan excludes necessary operating budget expenditures. It is our understanding that future operating budgets will provide for the ongoing normal maintenance of Reserve Components.

Updates to this Reserve Study will continue to monitor historical facts and trends concerning the external market conditions.



6. CREDENTIALS

HISTORY AND DEPTH OF SERVICE

Founded in 1991, Reserve Advisors is the leading provider of reserve studies, insurance appraisals, developer turnover transition studies, expert witness services, and other engineering consulting services. Clients include community associations, resort properties, hotels, clubs, non-profit organizations, apartment building owners, religious and educational institutions, and office/commercial building owners in 48 states, Canada and throughout the world.

The **architectural engineering consulting firm** was formed to take a leadership role in helping fiduciaries, boards, and property managers manage their property like a business with a long-range master plan known as a Reserve Study.

Reserve Advisors employs the **largest staff of Reserve Specialists** with bachelor's degrees in engineering dedicated to Reserve Study services. Our founders are also founders of Community Associations Institute's (CAI) Reserve Committee that developed national standards for reserve study providers. One of our founders is a Past President of the Association of Professional Reserve Analysts (APRA). Our vast experience with a variety of building types and ages, on-site examination and historical analyses are keys to determining accurate remaining useful life estimates of building components.

No Conflict of Interest - As consulting specialists, our **independent opinion** eliminates any real or perceived conflict of interest because we do not conduct or manage capital projects.

TOTAL STAFF INVOLVEMENT

Several staff members participate in each assignment. The responsible advisor involves the staff through a Team Review, exclusive to Reserve Advisors, and by utilizing the experience of other staff members, each of whom has served hundreds of clients. We conduct Team Reviews, an internal quality assurance review of each assignment, including: the inspection; building component costing; lifing; and technical report phases of the assignment. Due to our extensive experience with building components, we do not have a need to utilize subcontractors.

OUR GOAL

To help our clients fulfill their fiduciary responsibilities to maintain property in good condition.

VAST EXPERIENCE WITH A VARIETY OF BUILDINGS

Reserve Advisors has conducted reserve studies for a multitude of different communities and building types. We've analyzed thousands of buildings, from as small as a 3,500-square foot day care center to a 2,600,000-square foot 98-story highrise. We also routinely inspect buildings with various types of mechanical systems such as simple electric heat, to complex systems with air handlers, chillers, boilers, elevators, and life safety and security systems.

We're familiar with all types of building exteriors as well. Our well-versed staff regularly identifies optimal repair and replacement solutions for such building exterior surfaces such as adobe, brick, stone, concrete, stucco, EIFS, wood products, stained glass and aluminum siding, and window wall systems.

OLD TO NEW

Reserve Advisors' experience includes ornate and vintage buildings as well as modern structures. Our specialists are no strangers to older buildings. We're accustomed to addressing the unique challenges posed by buildings that date to the 1800's. We recognize and consider the methods of construction employed into our analysis. We recommend appropriate replacement programs that apply cost effective technologies while maintaining a building's character and appeal.

STEPHEN E. BRESKI, RS
Director of Product Development
Responsible Advisor

CURRENT CLIENT SERVICES

Stephen E. Breski, a Senior Civil Engineer, is an Advisor for Reserve Advisors. Mr. Breski is responsible for the inspection and analysis of the condition of clients' properties, and recommending engineering solutions to prolong the lives of the components. He also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. He is responsible for conducting Life Cycle Cost Analyses and Capital Replacement Forecast services and the preparation of Reserve Study Reports for condominiums, townhomes, planned unit developments and homeowner associations.



The following is a partial list of clients served by Stephen Breski demonstrating the breadth of experiential knowledge of community associations in construction and related systems.

30 Park Place Condominium Association, Inc. - Located in downtown Manhattan in New York City, this 82-story luxury tower offers 157 private residences and 189 hotel guest suites. The building was designed by renowned architect Robert A.M. Stern and is operated by the Four Seasons staff. On the 37th floor the residences enjoy their private amenity area complete with a fitness center and film screening room. The hotel includes a spa and indoor swimming pool.

Merion Golf Club - Located in the suburbs of Philadelphia, PA, this club was founded in 1865 as the Merion Cricket Club. Later, the Merion Cricket Club founded the Merion Golf Club in 1896 and has been an iconic golf club since. Merion Golf Club's East Course is consistently ranked as one of the top golf courses and has hosted five U.S. Opens featuring champions Ben Hogan (1950), Lee Trevino and his playoff victory over Jack Nicklaus (1971) and, most recently, Justin Rose (2013).

Saint Sophia Greek Orthodox Cathedral - Located in Northwest Washington, D.C., the cornerstone of this cathedral was laid by President Dwight D. Eisenhower in 1956. A second building was constructed in addition to the cathedral in 2004. This building, known as the Education and Activities Center, includes classrooms and a library.

Big Bass Lake Community Association, Inc. - Located in Gouldsboro, Pennsylvania, this community features three dams which provide the 1,655 single family homes with over 850,000 square yards of surface area for boating and recreation. Residents enjoy a clubhouse, a recreational center, a ski hill, docks, recreational courts, beaches and playgrounds. The Association also maintains an administration building, maintenance shop, sales office and library.

Woodmont Country Club - This exclusive club was established more than 100 years ago. The elegant design of Woodmont's Clubhouse, incorporates several dining venues, a grand ballroom and an expansive fitness and wellness center. The clubhouse overlooks Woodmont's two premiere golf courses, swimming complex and 22 *Har-Tru* tennis courts.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Mr. Breski worked for a private construction management company in Pittsburgh, Pennsylvania, where he was working as a cost estimator. Prior to working as an estimator, Mr. Breski also worked for the nation's largest provider of wireless infrastructure, where he assisted in the structural analysis of cell phone towers. Mr. Breski attended the Swanson School of Engineering at the University of Pittsburgh where he attained his Bachelor of Science degree in Civil and Environmental Engineering. His studies focused on structural engineering.

EDUCATION

University of Pittsburgh - B.S. Civil and Environmental Engineering

PROFESSIONAL AFFILIATIONS

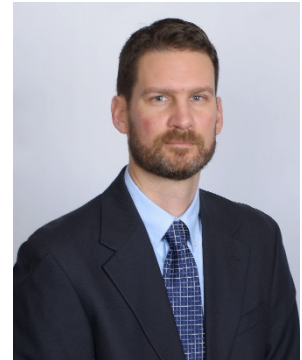
Reserve Specialist (RS) – Community Association Institute
Engineer in Training (E.I.T.) – State of Maryland

ALAN M. EBERT, P.E., PRA, RS
Director of Quality Assurance

CURRENT CLIENT SERVICES

Alan M. Ebert, a Professional Engineer, is the Director of Quality Assurance for Reserve Advisors. Mr. Ebert is responsible for the management, review and quality assurance of reserve studies. In this role, he assumes the responsibility of stringent report review analysis to assure report accuracy and the best solution for Reserve Advisors' clients.

Mr. Ebert has been involved with thousands of Reserve Study assignments. The following is a partial list of clients served by Alan Ebert demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.



Brownsville Winter Haven Located in Brownsville, Texas, this unique homeowners association contains 525 units. The Association maintains three pools and pool houses, a community and management office, landscape and maintenance equipment, and nine irrigation canals with associated infrastructure.

Rosemont Condominiums This unique condominium is located in Alexandria, Virginia and dates to the 1940's. The two mid-rise buildings utilize decorative stone and brick masonry. The development features common interior spaces, multi-level wood balconies and common asphalt parking areas.

Stillwater Homeowners Association Located in Naperville, Illinois, Stillwater Homeowners Association maintains four tennis courts, an Olympic sized pool and an upscale ballroom with commercial-grade kitchen. The community also maintains three storm water retention ponds and a detention basin.

Birchfield Community Services Association This extensive Association comprises seven separate parcels which include 505 townhome and single family homes. This Community Services Association is located in Mt. Laurel, New Jersey. Three lakes, a pool, a clubhouse and management office, wood carports, aluminum siding, and asphalt shingle roofs are a few of the elements maintained by the Association.

Oakridge Manor Condominium Association Located in Londonderry, New Hampshire, this Association includes 104 units at 13 buildings. In addition to extensive roads and parking areas, the Association maintains a large septic system and significant concrete retaining walls.

Memorial Lofts Homeowners Association This upscale high rise is located in Houston, Texas. The 20 luxury units include large balconies and decorative interior hallways. The 10-story building utilizes a painted stucco facade and TPO roof, while an on-grade garage serves residents and guests.

PRIOR RELEVANT EXPERIENCE

Mr. Ebert earned his Bachelor of Science degree in Geological Engineering from the University of Wisconsin-Madison. His relevant course work includes foundations, retaining walls, and slope stability. Before joining Reserve Advisors, Mr. Ebert was an oilfield engineer and tested and evaluated hundreds of oil and gas wells throughout North America.

EDUCATION

University of Wisconsin-Madison - B.S. Geological Engineering

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

Professional Engineering License – Wisconsin, North Carolina, Illinois, Colorado

Reserve Specialist (RS) - Community Associations Institute

Professional Reserve Analyst (PRA) - Association of Professional Reserve Analysts



RESOURCES

Reserve Advisors utilizes numerous resources of national and local data to conduct its Professional Services. A concise list of several of these resources follows:

Association of Construction Inspectors, (ACI) the largest professional organization for those involved in construction inspection and construction project management. ACI is also the leading association providing standards, guidelines, regulations, education, training, and professional recognition in a field that has quickly become important procedure for both residential and commercial construction, found on the web at www.iami.org.

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., (ASHRAE) the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., devoted to the arts and sciences of heating, ventilation, air conditioning and refrigeration; recognized as the foremost, authoritative, timely and responsive source of technical and educational information, standards and guidelines, found on the web at www.ashrae.org. Reserve Advisors actively participates in its local chapter and holds individual memberships.

Community Associations Institute, (CAI) America's leading advocate for responsible communities noted as the only national organization dedicated to fostering vibrant, responsive, competent community associations. Their mission is to assist community associations in promoting harmony, community, and responsible leadership.

Marshall & Swift / Boeckh, (MS/B) the worldwide provider of building cost data, co-sourcing solutions, and estimating technology for the property and casualty insurance industry found on the web at www.marshallswift.com.

R.S. Means CostWorks, North America's leading supplier of construction cost information. As a member of the Construction Market Data Group, Means provides accurate and up-to-date cost information that helps owners, developers, architects, engineers, contractors and others to carefully and precisely project and control the cost of both new building construction and renovation projects found on the web at www.rsmeans.com.

Reserve Advisors' library of numerous periodicals relating to reserve studies, condition analyses, chapter community associations, and historical costs from thousands of capital repair and replacement projects, and product literature from manufacturers of building products and building systems.

7. DEFINITIONS

Definitions are derived from the standards set forth by the Community Associations Institute (CAI) representing America's 305,000 condominium and homeowners associations and cooperatives, and the Association of Professional Reserve Analysts, setting the standards of care for reserve study practitioners.

Cash Flow Method - A method of calculating Reserve Contributions where contributions to the reserve fund are designed to offset the variable annual expenditures from the reserve fund. Different Reserve Funding Plans are tested against the anticipated schedule of reserve expenses until the desired funding goal is achieved.

Component Method - A method of developing a Reserve Funding Plan with the total contribution is based on the sum of the contributions for individual components.

Current Cost of Replacement - That amount required today derived from the quantity of a *Reserve Component* and its unit cost to replace or repair a Reserve Component using the most current technology and construction materials, duplicating the productive utility of the existing property at current *local* market prices for *materials, labor* and manufactured equipment, contractors' overhead, profit and fees, but without provisions for building permits, overtime, bonuses for labor or premiums for material and equipment. We include removal and disposal costs where applicable.

Fully Funded Balance - The Reserve balance that is in direct proportion to the fraction of life "used up" of the current Repair or Replacement cost similar to Total Accrued Depreciation.

Funding Goal (Threshold) - The stated purpose of this Reserve Study is to determine the adequate, not excessive, minimal threshold reserve balances.

Future Cost of Replacement - *Reserve Expenditure* derived from the inflated current cost of replacement or current cost of replacement as defined above, with consideration given to the effects of inflation on local market rates for materials, labor and equipment.

Long-Lived Property Component - Property component of Caroline Oaks responsibility not likely to require capital repair or replacement during the next 30 years with an unpredictable remaining Useful Life beyond the next 30 years.

Percent Funded - The ratio, at a particular point of time (typically the beginning of the Fiscal Year), of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage.

Remaining Useful Life - The estimated remaining functional or useful time in years of a *Reserve Component* based on its age, condition and maintenance.

Reserve Component - Property elements with: 1) Caroline Oaks responsibility; 2) limited Useful Life expectancies; 3) predictable Remaining Useful Life expectancies; and 4) a replacement cost above a minimum threshold.

Reserve Component Inventory - Line Items in ***Reserve Expenditures*** that identify a *Reserve Component*.

Reserve Contribution - An amount of money set aside or *Reserve Assessment* contributed to a *Reserve Fund* for future *Reserve Expenditures* to repair or replace *Reserve Components*.

Reserve Expenditure - Future Cost of Replacement of a Reserve Component.

Reserve Fund Status - The accumulated amount of reserves in dollars at a given point in time, i.e., at year-end.

Reserve Funding Plan - The portion of the Reserve Study identifying the *Cash Flow Analysis* and containing the recommended Reserve Contributions and projected annual expenditures, interest earned and reserve balances.

Reserve Study - A budget planning tool that identifies the current status of the reserve fund and a stable and equitable Funding Plan to offset the anticipated future major common area expenditures.

Useful Life - The anticipated total time in years that a *Reserve Component* is expected to serve its intended function in its present application or installation.



8. PROFESSIONAL SERVICE CONDITIONS

Our Services - Reserve Advisors, LLC (RA) performs its services as an independent contractor in accordance with our professional practice standards and its compensation is not contingent upon our conclusions. The purpose of our reserve study is to provide a budget planning tool that identifies the current status of the reserve fund, and an opinion recommending an annual funding plan to create reserves for anticipated future replacement expenditures of the property.

Our inspection and analysis of the subject property is limited to visual observations, is noninvasive and is not meant to nor does it include investigation into statutory, regulatory or code compliance. RA inspects sloped roofs from the ground and inspects flat roofs where safe access (stairs or ladder permanently attached to the structure) is available. The report is based upon a "snapshot in time" at the moment of inspection. RA may note visible physical defects in our report. The inspection is made by employees generally familiar with real estate and building construction but in the absence of invasive testing RA cannot opine on, nor is RA responsible for, the structural integrity of the property including its conformity to specific governmental code requirements for fire, building, earthquake, and occupancy, or any physical defects that were not readily apparent during the inspection.

RA is not responsible for conditions that have changed between the time of inspection and the issuance of the report. RA does not investigate, nor assume any responsibility for any existence or impact of any hazardous materials, such as asbestos, urea-formaldehyde foam insulation, other chemicals, toxic wastes, environmental mold or other potentially hazardous materials or structural defects that are latent or hidden defects which may or may not be present on or within the property. RA does not make any soil analysis or geological study as part of its services; nor does RA investigate water, oil, gas, coal, or other subsurface mineral and use rights or such hidden conditions. RA assumes no responsibility for any such conditions. The Report contains opinions of estimated costs and remaining useful lives which are neither a guarantee of the actual costs of replacement nor a guarantee of remaining useful lives of any property element.

RA assumes, without independent verification, the accuracy of all data provided to it. You agree to indemnify and hold RA harmless against and from any and all losses, claims, actions, damages, expenses or liabilities, including reasonable attorneys' fees, to which we may become subject in connection with this engagement, because of any false, misleading or incomplete information which we have relied upon supplied by you or others under your direction, or which may result from any improper use or reliance on the Report by you or third parties under your control or direction. Your obligation for indemnification and reimbursement shall extend to any director, officer, employee, affiliate, or agent of RA. Liability of RA and its employees, affiliates, and agents for errors and omissions, if any, in this work is limited to the amount of its compensation for the work performed in this engagement.

Report - RA completes the services in accordance with the Proposal. The Report represents a valid opinion of RA's findings and recommendations and is deemed complete. RA, however, considers any additional information made available to us within 6 months of issuing the Report if a timely request for a revised Report is made. RA retains the right to withhold a revised Report if payment for services was not tendered in a timely manner. All information received by RA and all files, work papers or documents developed by RA during the course of the engagement shall remain the property of RA and may be used for whatever purpose it sees fit.

Your Obligations - You agree to provide us access to the subject property for an on-site visual inspection. You agree to provide RA all available, historical and budgetary information, the governing documents, and other information that we request and deem necessary to complete the Report. You agree to pay actual attorneys' fees and any other costs incurred to collect on any unpaid balance for RA's services.

Use of Our Report and Your Name - Use of this Report is limited to only the purpose stated herein. You hereby acknowledge that any use or reliance by you on the Report for any unauthorized purpose is at your own risk and you shall hold RA harmless from any consequences of such use. Use by any unauthorized third party is unlawful. The Report in whole or in part **is not and cannot be used as a design specification for design engineering purposes or as an appraisal**. You may show our Report in its entirety to the following third parties: members of your organization, your accountant, attorney, financial institution and property manager who need to review the information contained herein. Without the written consent of RA, you shall not disclose the Report to any other third party. The Report contains intellectual property developed by RA and **shall not be reproduced or distributed to any party that conducts reserve studies without the written consent of RA**.

RA will include your name in our client lists. RA reserves the right to use property information to obtain estimates of replacement costs, useful life of property elements or otherwise as RA, in its sole discretion, deems appropriate.

Payment Terms, Due Dates and Interest Charges - Retainer payment is due upon authorization and prior to inspection. The balance is due net 30 days from the report shipment date. Any balance remaining 30 days after delivery of the Report shall accrue an interest charge of 1.5% per month. Any litigation necessary to collect an unpaid balance shall be venued in Milwaukee County Circuit Court for the State of Wisconsin.