

# Elkhorn Creek Lodges

September 1, 2023 • Big Sky, MT

FULL RESERVE STUDY



Elkhorn Creek Lodges  
Big Sky, Montana

Dear Board of Directors of Elkhorn Creek Lodges:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of Elkhorn Creek Lodges in Big Sky, Montana and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, September 1, 2023.

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 Elkhorn Creek Lodges 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 October 5, 2023 by

*Reserve Advisors, LLC*

Visual Inspection and Report by: Tanner A. Oldenburger, RS<sup>1</sup>, Vice President of Engineering

Review by: Christopher C. DeWall, RS, PRA<sup>2</sup>, Vice President of Product Development



<sup>1</sup> 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.

<sup>2</sup> 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>.



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# 1. RESERVE STUDY EXECUTIVE SUMMARY

**Client:** Elkhorn Creek Lodges (Elkhorn Creek)

**Location:** Big Sky, Montana

**Reference:** 232383

**Property Basics:** Elkhorn Creek Lodges is a condominium style development which consists of 18 units in two buildings. Building One was constructed in 2007 to and Building Two was constructed in 2019.

**Reserve Components Identified:** 29 Reserve Components for Building One and 25 Reserve Components for Building Two

**Inspection Date:** September 1, 2023.

**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 these threshold funding years in 2035 due to the replacement of the roof at Building One and in 2043 due to the replacement of the roof at Building Two.

**Methodology:** 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% anticipated annual rate of return on invested reserves
- 3.5% 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:**

- \$80,000 projected as of January 1, 2024
- 2023 budgeted Reserve Contributions of \$35,273 and 2024 budgeted Reserve Contributions of \$54,000
- A potential deficit in reserves might occur by 2026 based upon continuation of the most recent annual reserve contribution of \$54,000 and the identified Reserve Expenditures.

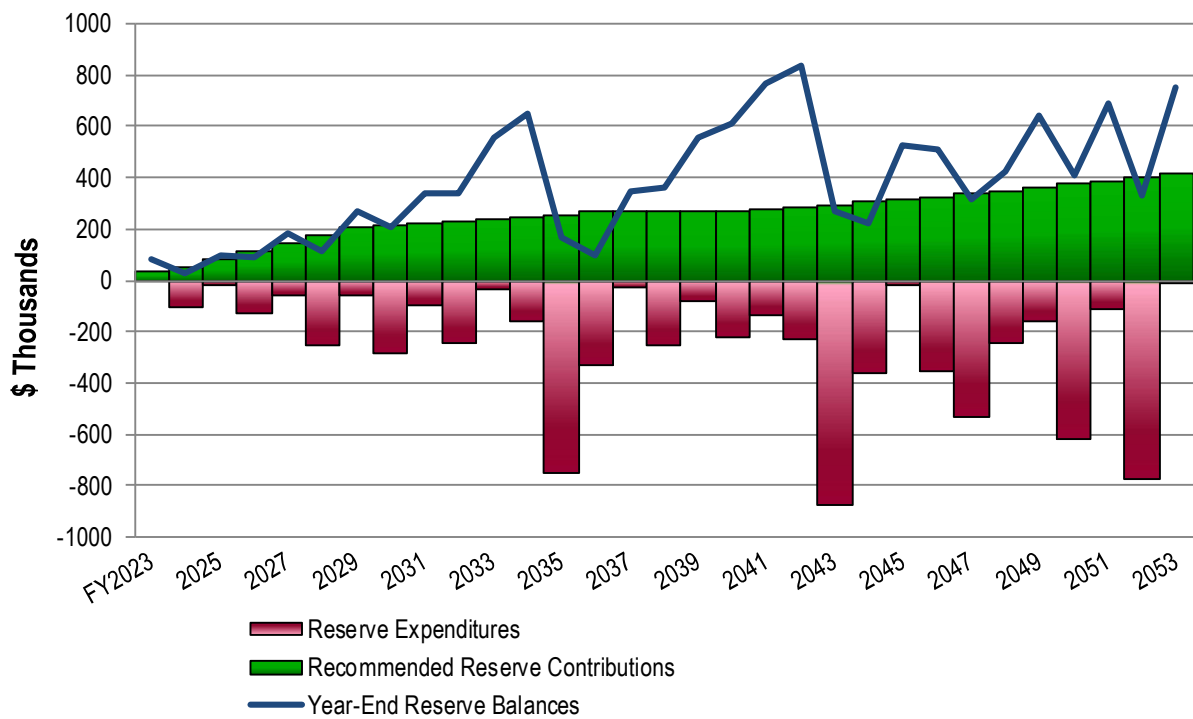
**Recommended Reserve Funding:** We recommend the following in order to achieve a stable and equitable Cash Flow Methodology Funding Plan:

- Phased increases of \$31,000 from 2025 through 2029
- Inflationary increases from 2030 through 2036
- Stable contributions of \$265,900 from 2037 through 2040
- Inflationary increases thereafter through 2053, the limit of this study's Cash Flow Analysis
- Initial recommended adjustment in Reserve Contributions of \$31,000 represents an average monthly increase of \$143.52 per homeowner and about a ten percent (9.9%) adjustment in the 2024 total Operating Budget of \$314,100.



### Elkhorn Creek Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2024	54,000 (Budgeted)	28,752	2034	248,200	656,773	2044	305,100	221,905
2025	85,000	101,328	2035	256,900	167,814	2045	315,800	529,801
2026	116,000	95,097	2036	265,900	103,275	2046	326,900	511,830
2027	147,000	188,678	2037	265,900	343,981	2047	338,300	322,148
2028	178,000	117,025	2038	265,900	363,912	2048	350,100	431,571
2029	209,000	269,869	2039	265,900	553,934	2049	362,400	637,497
2030	216,300	207,493	2040	265,900	608,806	2050	375,100	405,857
2031	223,900	341,358	2041	275,200	765,077	2051	388,200	689,615
2032	231,700	336,287	2042	284,800	838,903	2052	401,800	326,421
2033	239,800	556,717	2043	294,800	270,273	2053	415,900	753,008





## 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

### Elkhorn Creek Lodges

### Big Sky, Montana

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, September 1, 2023.

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

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:

- Elkhorn Creek responsibility
- Limited useful life expectancies
- Predictable remaining useful life expectancies
- Replacement cost above a minimum threshold

**Long-Lived Property Elements** – These 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
- Elevator Cylinder, Building Two
- Exhaust System, Fan and Louvers, Building Two
- Foundation
- Pipes, Interior Building, Domestic Water, Sanitary Waste, Vent, Sprinkler, Fire Standpipes, Gas Supply, Building Heating and Cooling, Common
- Pipes, Subsurface Utilities
- Railings, Aluminum, Breezeway, Building Two
- Retaining Walls, Stone Boulder
- Structural Frame
- Valves, Large Diameter
- Walls, Steel Siding
- Windows and Doors, Common, Building Two



**Electrical panels**



**Large diameter valves**



**Walls, Steel Siding**



**Stone boulder retaining wall**

**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 \$5,000 (These relatively minor expenditures have
- Bollard Light Fixtures, Entry Steps
- Doors, Interior and Miscellaneous Exterior
- Duct Cleaning
- Expansion Tanks
- Fire Doors, Elevators
- Fire Extinguishers
- Landscape
- Light Fixtures, Garages, Recessed, Stairwells
- Motors
- Paint Finishes, Garages and Stairwells
- Paint Finishes, Railings
- Paint Finishes, Touch Up
- Pipes, Common, Interim Repairs and Waste Rodding
- Pumps Less Than Five-HP (horsepower)
- Security System (Building Two and planned addition at Building One in 2024)
- Signage, Monument (Planned for replacement in 2024)
- Staff, Storage and Service Areas
- Unit Heaters, Stairwells and Entrances
- Valves, Small Diameter (We assume replacement as needed in lieu of an aggregate replacement of all small diameter valves as a single event.)
- Other Repairs normally funded through the Operating Budget



**Building Two fire door**



**Garage light fixtures**



**Bollard light fixture**



**Stairwell unit heater**

**Homeowners' Responsibility** - Items 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:

- Balconies and Railings
- Electrical Systems (Including Circuit Protection Panels)
- Heating, Ventilating and Air Conditioning (HVAC) Units
- Interiors
- Patios, Concrete
- Pipes (Within Units)
- Windows and Doors

At the request of the Board, we provide a separate Expenditures table for the unit owner limited common elements. These elements are the cost responsibility of the benefiting owners, and not funded through the reserve fund.



**Timber balcony post base weathering**



**Unit balconies at Building One**



**Unit owner garage doors**



**Patio cracks**



**Patio cracks**

### 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
- 2023 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
- Predicted reserves based on current funding level

#### 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***.

**Property Site Elements**  
**RESERVE EXPENDITURES**

Elkhorn Creek  
Lodges  
Big Sky, Montana

**Explanatory Notes:**

- 1) **3.5%** is the estimated Inflation Rate for estimating Future Replacement Costs.
- 2) FY2023 is Fiscal Year beginning January 1, 2023 and ending December 31, 2023.

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 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028	6 2029	7 2030	8 2031	9 2032	10 2033	11 2034	12 2035	13 2036	14 2037	15 2038	
						Useful	Remaining	Unit (2023)	Per Phase (2023)	Total (2023)																		
<b>Property Site Elements (Shared)</b>																												
4.040	1,400	1,400	Square Yards	Asphalt Pavement, Mill and Overlay, Access Drives	2030	15 to 20	7	35.00	49,000	49,000	24.1%																	62,342
4.045	1,400	1,400	Square Yards	Asphalt Pavement, Total Replacement, Access Drives	2050	15 to 20	27	60.00	84,000	84,000	27.5%																	
4.100	6	6	Each	Catch Basins, Inspections and Capital Repairs	2030	15 to 20	7	1,500.00	9,000	9,000	4.4%																	11,451
4.110	1,000	250	Linear Feet	Concrete Curbs and Gutters, Partial	2030	to 65	7 to 30+	55.00	13,750	55,000	6.8%																	17,494
4.125	1,600	320	Square Feet	Concrete Flatwork, Sidewalks And Stairs, Partial	2025	to 65	2 to 30+	40.00	12,800	64,000	11.2%		13,712															18,056
4.540	2	1	Each	Lift Station, Pumps, Phased	2026	to 10	3 to 5	10,000.00	10,000	20,000	8.9%				11,087		11,877											
4.550	1	1	Each	Lift Station, Rebuild	2036	to 30	13	55,000.00	55,000	55,000	11.1%																	86,018
4.560	3	3	Each	Light Poles and Fixtures	2037	to 30	14	4,500.00	13,500	13,500	2.8%																	21,852
4.733	80	40	Linear Feet	Railings, Steel, Phased	2029	to 20	6 to 14	120.00	4,800	9,600	3.3%																	7,770
<b>Anticipated Expenditures, By Year (\$774,369 over 30 years)</b>												0	0	13,712	11,087	0	11,877	5,900	91,287	0	0	18,056	0	0	86,018	29,622	0	

**Property Site Elements**  
**RESERVE EXPENDITURES**

**Elkhorn Creek  
Lodges**  
Big Sky, Montana

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 (2023)	Per Phase (2023)	Total (2023)		2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	
<b>Property Site Elements (Shared)</b>																											
4.040	1,400	1,400	Square Yards	Asphalt Pavement, Mill and Overlay, Access Drives	2030	15 to 20	7	35.00	49,000	49,000	24.1%															124,047	
4.045	1,400	1,400	Square Yards	Asphalt Pavement, Total Replacement, Access Drives	2050	15 to 20	27	60.00	84,000	84,000	27.5%																212,652
4.100	6	6	Each	Catch Basins, Inspections and Capital Repairs	2030	15 to 20	7	1,500.00	9,000	9,000	4.4%																22,784
4.110	1,000	250	Linear Feet	Concrete Curbs and Gutters, Partial	2030	to 65	7 to 30+	55.00	13,750	55,000	6.8%																34,809
4.125	1,600	320	Square Feet	Concrete Flatwork, Sidewalks And Stairs, Partial	2025	to 65	2 to 30+	40.00	12,800	64,000	11.2%			23,776													31,308
4.540	2	1	Each	Lift Station, Pumps, Phased	2026	to 10	3 to 5	10,000.00	10,000	20,000	8.9%							22,061			23,632						
4.550	1	1	Each	Lift Station, Rebuild	2036	to 30	13	55,000.00	55,000	55,000	11.1%																
4.560	3	3	Each	Light Poles and Fixtures	2037	to 30	14	4,500.00	13,500	13,500	2.8%																
4.733	80	40	Linear Feet	Railings, Steel, Phased	2029	to 20	6 to 14	120.00	4,800	9,600	3.3%																11,741
<b>Anticipated Expenditures, By Year (\$774,369 over 30 years)</b>												0	0	23,776	0	0	0	0	22,061	0	23,632	43,049	394,292	0	0	0	



**Building One**  
**RESERVE EXPENDITURES**

**Elkhorn Creek  
Lodges**  
Big Sky, Montana

**Explanatory Notes:**

- 1) **3.5%** is the estimated Inflation Rate for estimating Future Replacement Costs.
- 2) **FY2023** is Fiscal Year beginning January 1, 2023 and ending December 31, 2023.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Unit Cost, \$	Percentage Shared	Costs, \$		Percentage of Future Expenditures	RUL = 0 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028	6 2029	7 2030	8 2031	9 2032	10 2033	11 2034	12 2035	13 2036	14 2037	15 2038
						Useful	Remaining			Per Phase (2023)	Total (2023)																	
<b>Exterior Building Elements</b>																												
1.040	1,450	1,450	Square Feet	Breezeways, Composite Decking and Frame Repairs	2031	20 to 25	8	50.00	100%	72,500	72,500	2.6%																95,469
1.060	750	750	Square Feet	Breezeways, Concrete, Repairs and Waterproof Coating Applications	2028	10 to 15	5	14.00	100%	10,500	10,500	0.9%						12,471										
1.105	120	120	Linear Feet	Balconies, Railings, Wood, Breezeway	2042	to 35	19	150.00	100%	18,000	18,000	0.9%																
1.240	150	150	Linear Feet	Gutters and Downspouts, Aluminum (Incl Heat Tape)	2028	to 15	5	35.00	100%	5,250	5,250	0.4%						6,235										
1.260	28	28	Each	Light Fixtures	2032	to 20	9	300.00	100%	8,400	8,400	0.9%																11,448
1.460	130	130	Squares	Roof, Stone Coated Steel	2035	20 to 30	12	2,800.00	100%	364,000	364,000	14.8%																550,029
1.800	2,400	2,400	Square Feet	Walls, Stone Veneer, Inspections and Capital Repairs	2032	10 to 15	9	9.50	100%	22,800	22,800	2.2%																31,074
1.865	1	1	Allowance	Walls, Siding, Wood, Paint Finishes (Incl. Railings, Columns, and Soffits)	2024	3 to 5	1	95,000.00	100%	95,000	95,000	35.9%	98,325					112,830										148,576
1.866	14,000	14,000	Square Feet	Walls, Siding, Wood, Partial Repairs and Chinking	2028	5 to 10	5	4.50	100%	63,000	63,000	12.7%						74,824										98,529
1.980	400	400	Square Feet	Windows and Doors, Common	2052	to 45	29	140.00	100%	56,000	56,000	4.1%																
<b>Interior Building Elements</b>																												
2.100	1	1	Each	Elevator Cab Finishes	2027	to 20	4	25,000.00	100%	25,000	25,000	2.3%						28,688										
2.600	1	1	Allowance	Elevator Landings, Renovations	2027	to 20	4	24,000.00	100%	24,000	24,000	2.2%						27,541										
<b>Building Services Elements</b>																												
3.105	1	1	Each	Boiler, Building Heat, 399-MBH (Incl. Circulation Pump) (2024 for Glycol)	2024	18 to 25	1	29,000.00	100%	29,000	29,000	3.0%	8,000					34,443										
3.320	1	1	Each	Elevator, Hydraulic, Pump and Controls	2035	25 to 30	12	135,000.00	100%	135,000	135,000	5.5%																203,994
3.330	1	1	Each	Elevator, Hydraulic, Cylinder	2052	to 45+	29	55,000.00	100%	55,000	55,000	4.0%																
3.560	1	1	Allowance	Life Safety System, Control Panel and Emergency Devices	2032	to 25	9	16,000.00	100%	16,000	16,000	0.6%																21,806
<b>Garage Elements</b>																												
7.360	6,000	300	Square Feet	Concrete, On-grade (Including Drain Repairs), Partial	2033	to 90	10 to 30+	24.00	100%	7,200	144,000	0.7%																10,156
7.400	1	1	Each	Door and Operator	2026	8 to 15	3	14,000.00	100%	14,000	14,000	1.1%					15,522											
7.460	1	1	Allowance	Exhaust System (Fan, Louver and Carbon Monoxide Detectors)	2042	to 35	19	12,000.00	100%	12,000	12,000	0.6%																
7.700	800	800	Square Feet	Ramp, Snow Melt	2029	20 to 25	6	55.00	100%	44,000	44,000	4.5%							54,087									
<b>Anticipated Expenditures, By Year (\$3,726,718 over 30 years)</b>													0	106,325	0	15,522	56,229	240,803	54,087	0	95,469	193,803	10,156	0	754,023	247,105	0	0

**Building One**  
**RESERVE EXPENDITURES**

**Elkhorn Creek  
Lodges**  
Big Sky, Montana

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Unit Cost, \$	Percentage Shared	Costs, \$		Percentage of Future Expenditures	16 2039	17 2040	18 2041	19 2042	20 2043	21 2044	22 2045	23 2046	24 2047	25 2048	26 2049	27 2050	28 2051	29 2052	30 2053
						Useful	Remaining			Per Phase (2023)	Total (2023)																
<b>Exterior Building Elements</b>																											
1.040	1,450	1,450	Square Feet	Breezeways, Composite Decking and Frame Repairs	2031	20 to 25	8	50.00	100%	72,500	72,500	2.6%															
1.060	750	750	Square Feet	Breezeways, Concrete, Repairs and Waterproof Coating Applications	2028	10 to 15	5	14.00	100%	10,500	10,500	0.9%					20,893										
1.105	120	120	Linear Feet	Balconies, Railings, Wood, Breezeway	2042	to 35	19	150.00	100%	18,000	18,000	0.9%				34,605											
1.240	150	150	Linear Feet	Gutters and Downspouts, Aluminum (Incl Heat Tape)	2028	to 15	5	35.00	100%	5,250	5,250	0.4%					10,446										
1.260	28	28	Each	Light Fixtures	2032	to 20	9	300.00	100%	8,400	8,400	0.9%														22,780	
1.460	130	130	Squares	Roof, Stone Coated Steel	2035	20 to 30	12	2,800.00	100%	364,000	364,000	14.8%															
1.800	2,400	2,400	Square Feet	Walls, Stone Veneer, Inspections and Capital Repairs	2032	10 to 15	9	9.50	100%	22,800	22,800	2.2%															52,060
1.865	1	1	Allowance	Walls, Siding, Wood, Paint Finishes (Incl. Railings, Columns, and Soffits)	2024	3 to 5	1	95,000.00	100%	95,000	95,000	35.9%		170,494				195,646									257,628
1.866	14,000	14,000	Square Feet	Walls, Siding, Wood, Partial Repairs and Chinking	2028	5 to 10	5	4.50	100%	63,000	63,000	12.7%						129,744									170,848
1.980	400	400	Square Feet	Windows and Doors, Common	2052	to 45	29	140.00	100%	56,000	56,000	4.1%															151,865
<b>Interior Building Elements</b>																											
2.100	1	1	Each	Elevator Cab Finishes	2027	to 20	4	25,000.00	100%	25,000	25,000	2.3%															57,083
2.600	1	1	Allowance	Elevator Landings, Renovations	2027	to 20	4	24,000.00	100%	24,000	24,000	2.2%															54,800
<b>Building Services Elements</b>																											
3.105	1	1	Each	Boiler, Building Heat, 399-MBH (Incl. Circulation Pump) (2024 for Glycol)	2024	18 to 25	1	29,000.00	100%	29,000	29,000	3.0%															70,933
3.320	1	1	Each	Elevator, Hydraulic, Pump and Controls	2035	25 to 30	12	135,000.00	100%	135,000	135,000	5.5%															
3.330	1	1	Each	Elevator, Hydraulic, Cylinder	2052	to 45+	29	55,000.00	100%	55,000	55,000	4.0%															149,153
3.560	1	1	Allowance	Life Safety System, Control Panel and Emergency Devices	2032	to 25	9	16,000.00	100%	16,000	16,000	0.6%															
<b>Garage Elements</b>																											
7.360	6,000	300	Square Feet	Concrete, On-grade (Including Drain Repairs), Partial	2033	to 90	10 to 30+	24.00	100%	7,200	144,000	0.7%															15,347
7.400	1	1	Each	Door and Operator	2026	8 to 15	3	14,000.00	100%	14,000	14,000	1.1%															26,005
7.460	1	1	Allowance	Exhaust System (Fan, Louver and Carbon Monoxide Detectors)	2042	to 35	19	12,000.00	100%	12,000	12,000	0.6%															23,070
7.700	800	800	Square Feet	Ramp, Snow Melt	2029	20 to 25	6	55.00	100%	44,000	44,000	4.5%															115,288
<b>Anticipated Expenditures, By Year (\$3,726,718 over 30 years)</b>													0	170,494	26,005	57,675	31,339	325,390	15,347	0	163,943	224,508	70,933	0	115,288	752,274	0

## Building Two RESERVE EXPENDITURES

### Elkhorn Creek Lodges Big Sky, Montana

**Explanatory Notes:**

- 1) **3.5%** is the estimated Inflation Rate for estimating Future Replacement Costs.
- 2) FY2023 is Fiscal Year beginning January 1, 2023 and ending December 31, 2023.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Unit Cost, \$	Percentage Shared	Costs, \$		Percentage of Future Expenditures	RUL = 0 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028	6 2029	7 2030	8 2031	9 2032	10 2033	11 2034	12 2035	13 2036	14 2037	15 2038
						Useful	Remaining			Per Phase (2023)	Total (2023)																	
<b>Exterior Building Elements</b>																												
1.040	1,050	1,050	Square Feet	Breezeways, Composite Decking and Frame Repairs	2043	20 to 25	20	50.00	100%	52,500	52,500	3.5%																
1.060	550	550	Square Feet	Breezeways, Concrete, Repairs and Waterproof Coating Applications	2034	10 to 15	11	14.00	100%	7,700	7,700	1.0%												11,242				
1.240	150	150	Linear Feet	Gutters and Downspouts, Aluminum (Incl Heat Tape)	2032	to 15	9	35.00	100%	5,250	5,250	0.6%										7,155						
1.260	28	28	Each	Light Fixtures	2032	to 20	9	300.00	100%	8,400	8,400	1.1%										11,448						
1.460	130	130	Squares	Roof, Stone Coated Steel	2043	20 to 30	20	2,800.00	100%	364,000	364,000	24.0%																
1.800	2,400	2,400	Square Feet	Walls, Stone Veneer, Inspections and Capital Repairs	2032	10 to 15	9	9.50	100%	22,800	22,800	2.8%										31,074						
1.865	1	1	Allowance	Walls, Siding, Wood, Paint Finishes (Incl. Soffits, Columns, and Handrails)	2026	3 to 5	3	88,000.00	100%	88,000	88,000	35.5%				97,567					111,961				128,477			147,431
1.866	14,000	14,000	Square Feet	Walls, Siding, Wood, Repairs and Chinking	2030	5 to 10	7	4.50	100%	63,000	63,000	10.7%									80,154							105,547
<b>Interior Building Elements</b>																												
2.100	1	1	Each	Elevator Cab Finishes	2039	to 20	16	25,000.00	100%	25,000	25,000	1.4%																
2.600	1	1	Allowance	Elevator Landings, Renovations	2039	to 20	16	24,000.00	100%	24,000	24,000	1.4%																
<b>Building Services Elements</b>																												
3.105	1	1	Each	Boiler, Building Heat, 399-MBH (Incl. Circulation Pump)	2040	18 to 25	17	29,000.00	100%	29,000	29,000	1.7%																
3.320	1	1	Each	Elevator, Hydraulic, Pump and Controls	2047	25 to 30	24	135,000.00	100%	135,000	135,000	10.2%																
3.560	1	1	Allowance	Life Safety System, Control Panel and Emergency Devices	2044	to 25	21	16,000.00	100%	16,000	16,000	1.1%																
<b>Garage Elements</b>																												
7.360	6,000	300	Square Feet	Concrete, On-grade (Including Drain Repairs), Partial	2043	to 90	20 to 30+	24.00	100%	7,200	144,000	0.5%																
7.400	1	1	Each	Door and Operator	2034	8 to 15	11	14,000.00	100%	14,000	14,000	1.8%												20,440				
7.700	810	810	Square Feet	Ramp, Snow Melt	2041	20 to 25	18	55.00	100%	44,550	44,550	2.7%																
<b>Anticipated Expenditures, By Year (\$3,021,517 over 30 years)</b>													0	0	0	97,567	0	0	0	192,115	0	49,677	0	160,159	0	0	0	252,978



# RESERVE FUNDING PLAN

## Combined

### CASH FLOW ANALYSIS

#### Elkhorn Creek

#### Lodges

#### Big Sky, Montana

#### Individual Reserve Budgets & Cash Flows for the Next 30 Years

		FY2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Reserves at Beginning of Year	(Note 1)	N/A	80,000	28,752	101,328	95,097	188,678	117,025	269,869	207,493	341,358	336,287	556,717	656,773	167,814	103,275	343,981
Total Recommended Reserve Contributions	(Note 2)	N/A	54,000	85,000	116,000	147,000	178,000	209,000	216,300	223,900	231,700	239,800	248,200	256,900	265,900	265,900	265,900
Estimated Interest Earned, During Year	(Note 3)	N/A	1,077	1,288	1,945	2,810	3,027	3,831	4,726	5,434	6,709	8,842	12,015	8,164	2,684	4,428	7,009
Anticipated Expenditures, By Year		N/A	(106,325)	(13,712)	(124,176)	(56,229)	(252,680)	(59,987)	(283,402)	(95,469)	(243,480)	(28,212)	(160,159)	(754,023)	(333,123)	(29,622)	(252,978)
Anticipated Reserves at Year End		\$80,000	\$28,752	\$101,328	\$95,097	\$188,678	\$117,025	\$269,869	\$207,493	\$341,358	\$336,287	\$556,717	\$656,773	\$167,814	\$103,275	\$343,981	\$363,912
			(NOTE 5)											(NOTE 5)			
Predicted Reserves based on 2024 funding level of:	\$54,000	80,000	28,752	70,018	541	(1,699)	(202,400)										

(continued)

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

		2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Reserves at Beginning of Year		363,912	553,934	608,806	765,077	838,903	270,273	221,905	529,801	511,830	322,148	431,571	637,497	405,857	689,615	326,421
Total Recommended Reserve Contributions		265,900	265,900	275,200	284,800	294,800	305,100	315,800	326,900	338,300	350,100	362,400	375,100	388,200	401,800	415,900
Estimated Interest Earned, During Year		9,088	11,512	13,603	15,881	10,982	4,873	7,443	10,313	8,257	7,463	10,585	10,330	10,846	10,060	10,687
Anticipated Expenditures, By Year		(84,966)	(222,540)	(132,532)	(226,855)	(874,412)	(358,341)	(15,347)	(355,184)	(536,239)	(248,140)	(167,059)	(617,070)	(115,288)	(775,054)	0
Anticipated Reserves at Year End		\$553,934	\$608,806	\$765,077	\$838,903	\$270,273	\$221,905	\$529,801	\$511,830	\$322,148	\$431,571	\$637,497	\$405,857	\$689,615	\$326,421	\$753,008
						(NOTE 5)										(NOTE 4)

#### Explanatory Notes:

- 1) Year 2023 starting reserves are projected by Management and the Board as of January 1, 2024; FY2023 starts January 1, 2023 and ends December 31, 2023.
- 2) Reserve Contributions for 2023 are budgeted; 2024 is budgeted; 2025 is the first year of recommended contributions.
- 3) 2.0% is the estimated annual rate of return on invested reserves.
- 4) Accumulated year 2053 ending reserves consider the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Years (reserve balance at critical point).

Property Site Elements  
**RESERVE EXPENDITURES**

**Elkhorn Creek  
Lodges**  
Big Sky, Montana

Line Item	Reserve Component Inventory	RUL = 0 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028
<u>Property Site Elements (Shared)</u>							
4.125	Concrete Flatwork, Sidewalks And Stairs, Partial			13,712			
4.540	Lift Station, Pumps, Phased				11,087		11,877
<b>Anticipated Expenditures, By Year (\$774,369 over 30 years)</b>		0	0	13,712	11,087	0	11,877

**Building One**  
**RESERVE EXPENDITURES**

**Elkhorn Creek  
Lodges**  
Big Sky, Montana

Line Item	Reserve Component Inventory	RUL = 0 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028
<b><u>Exterior Building Elements</u></b>							
1.060	Breezeways, Concrete, Repairs and Waterproof Coating Applications						12,471
1.240	Gutters and Downspouts, Aluminum (Incl Heat Tape)						6,235
1.865	Walls, Siding, Wood, Paint Finishes (Incl. Railings, Columns, and Soffits)		98,325				112,830
1.866	Walls, Siding, Wood, Partial Repairs and Chinking						74,824
<b><u>Interior Building Elements</u></b>							
2.100	Elevator Cab Finishes					28,688	
2.600	Elevator Landings, Renovations					27,541	
<b><u>Building Services Elements</u></b>							
3.105	Boiler, Building Heat, 399-MBH (Incl. Circulation Pump) (2024 for Glycol)		8,000				34,443
<b><u>Garage Elements</u></b>							
7.400	Door and Operator				15,522		
<b>Anticipated Expenditures, By Year (\$3,726,718 over 30 years)</b>		0	106,325	0	15,522	56,229	240,803

**Building Two**  
**RESERVE EXPENDITURES**

**Elkhorn Creek  
Lodges**  
Big Sky, Montana

Line Item	Reserve Component Inventory	RUL = 0 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028
<u>Exterior Building Elements</u>							
1.865	Walls, Siding, Wood, Paint Finishes (Incl. Soffits, Columns, and Handrails)				97,567		
<u>Garage Elements</u>							
<b>Anticipated Expenditures, By Year (\$3,021,517 over 30 years)</b>		0	0	0	97,567	0	0



**Limited Common Elements  
EXPENDITURES**

Elkhorn Creek  
Lodges  
Big Sky, Montana

**Explanatory Notes:**

- 1) **3.5%** is the estimated Inflation Rate for estimating Future Replacement Costs.
- 2) FY2023 is Fiscal Year beginning January 1, 2023 and ending December 31, 2023.

Line Item	Total Quantity	Per Phase Quantity	Units	Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Unit Cost, \$	Percentage Shared	Costs, \$		Percentage of Future Expenditures	RUL = 0 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028	6 2029	7 2030	8 2031	9 2032	10 2033	11 2034	12 2035	13 2036	14 2037	15 2038													
						Useful	Remaining			Per Phase (2023)	Total (2023)																														
<b>Exterior Building Elements</b>																																									
1.051	750	750 Square Feet		Balconies, Composite Decking and Frame Repairs, Building One	2031	20 to 25	8	65.00	100%	48,750	48,750	3.6%																	64,194												
1.052	750	750 Square Feet		Balconies, Composite Decking and Frame Repairs, Building Two	2043	20 to 25	20	65.00	100%	48,750	48,750	5.4%																													
1.121	150	150 Linear Feet		Balconies, Railings, Wood, Building One	2042	to 35	19	150.00	100%	22,500	22,500	2.4%																													
1.122	150	150 Linear Feet		Balconies, Railings, Aluminum, Building Two	2053	to 35	30	180.00	100%	27,000	27,000	4.2%																													
1.245	9	9 Each		Garage Doors, Unit Garages, Building One	2032	to 25	9	1,900.00	100%	17,100	17,100	1.3%																		23,306											
1.246	9	9 Each		Garage Doors, Unit Garages, Building Two	2044	to 25	21	1,900.00	100%	17,100	17,100	2.0%																													
1.981	3,600	3,600 Square Feet		Windows and Doors, Units, Building One	2052	to 45	29	140.00	100%	504,000	504,000	76.6%																													
<b>Property Site Elements</b>																																									
4.130	1,200	160 Square Feet		Concrete Patios, Partial, Building One	2033	to 65	10 to 30+	55.00	100%	8,800	66,000	2.8%																		12,413											
4.131	1,200	120 Square Feet		Concrete Patios, Partial, Building Two	2041	to 65	18 to 30+	55.00	100%	6,600	66,000	1.6%																													
<b>Anticipated Expenditures, By Year (\$1,784,228 over 30 years)</b>													0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Limited Common Elements  
EXPENDITURES**

Elkhorn Creek  
Lodges  
Big Sky, Montana

Line Item	Total Quantity	Per Phase Quantity	Units	Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Unit Cost, \$	Percentage Shared	Costs, \$		Percentage of Future Expenditures	16 2039	17 2040	18 2041	19 2042	20 2043	21 2044	22 2045	23 2046	24 2047	25 2048	26 2049	27 2050	28 2051	29 2052	30 2053	
						Useful	Remaining			Per Phase (2023)	Total (2023)																	
<b>Exterior Building Elements</b>																												
1.051	750	750 Square Feet	Balconies, Composite Decking and Frame Repairs, Building One	2031	20 to 25	8	65.00	100%	48,750	48,750	3.6%																	
1.052	750	750 Square Feet	Balconies, Composite Decking and Frame Repairs, Building Two	2043	20 to 25	20	65.00	100%	48,750	48,750	5.4%						97,002											
1.121	150	150 Linear Feet	Balconies, Railings, Wood, Building One	2042	to 35	19	150.00	100%	22,500	22,500	2.4%				43,256													
1.122	150	150 Linear Feet	Balconies, Railings, Aluminum, Building Two	2053	to 35	30	180.00	100%	27,000	27,000	4.2%															75,783		
1.245	9	9 Each	Garage Doors, Unit Garages, Building One	2032	to 25	9	1,900.00	100%	17,100	17,100	1.3%																	
1.246	9	9 Each	Garage Doors, Unit Garages, Building Two	2044	to 25	21	1,900.00	100%	17,100	17,100	2.0%							35,216										
1.981	3,600	3,600 Square Feet	Windows and Doors, Units, Building One	2052	to 45	29	140.00	100%	504,000	504,000	76.6%															1,366,786		
<b>Property Site Elements</b>																												
4.130	1,200	160 Square Feet	Concrete Patios, Partial, Building One	2033	to 65	10 to 30+	55.00	100%	8,800	66,000	2.8%				16,346											21,524		
4.131	1,200	120 Square Feet	Concrete Patios, Partial, Building Two	2041	to 65	18 to 30+	55.00	100%	6,600	66,000	1.6%				12,259											16,143		
<b>Anticipated Expenditures, By Year (\$1,784,228 over 30 years)</b>														0	0	28,605	43,256	97,002	35,216	0	0	0	0	37,667	0	0	1,366,786	75,783

## 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.*

### Exterior Building Elements



**Building One exterior rear elevation view**



**Building Two exterior front elevation view**



**Building Two exterior front elevation view**



**Building Two exterior side elevation view**



**Building Two exterior side elevation view**

## **Breezeways, Composite**

---

**Line Item:** 1.040

**Quantity:** Composite deck breezeways with wood frames which comprise a total of 1,450 square feet at Building One and 1,050 square feet at Building Two

**History:** Original

**Condition:** The decking at Building One is in fair condition and the decking at Building Two is in good condition. We note decking surface damage at Building One.



**Composite breezeway deck at Building One**



**Decking cracks at fasteners**



**Decking scratches**



**Composite breezeway deck at Building Two**



**Breezeway wood frame**

**Useful Life:** 20- to 25-years

**Component Detail Notes:** The composition of composite materials used in the construction of breezeways typically includes a combination of wood waste material, plastic and recycled materials. These composite materials are low maintenance and do not split, cup or splinter. Composite materials do not require periodic stain or sealer applications.

Composite breezeway materials are not structural components and therefore require traditional framing members, such as wood or metal. In addition, some manufacturers require closer spacing of framing components to minimize sagging. In addition to the added cost of framing, composite breezeway deck materials can cost up to twice as much as natural wood.

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

- Annually:
  - Inspect to identify and correct any unsafe conditions
  - Secure loose fasteners and replace deteriorated fasteners

- Check railing stability and fasteners
- Clean as necessary

**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.

## Balconies, Concrete

---

**Line Item:** 1.060

**Quantity:** Concrete breezeways comprising approximately 750 square feet of horizontal surface area at Building One and 550 square feet at Building Two.

**History:** Original with no appearance of previous coating applications noted

**Condition:** Good overall with no visible deterioration



Concrete breezeway



Breezeway drain



Concrete breezeway at Building Two



Concrete breezeway at Building One

**Useful Life:** Capital repairs including a close-up visual inspection, patching of delaminated concrete, routing and filling of cracked concrete, and waterproof coating applications every 8- to 12-years.

**Component Detail Notes:** A waterproof coating application minimizes storm water penetration into the concrete and therefore minimizes future concrete deterioration. *Failure to maintain a waterproof coating on the breezeways will result in increased concrete repairs and replacements as the breezeways age.* Capital repairs may also include replacement of the caulked joint between the breezeway and the building, and repair or replacement of the metal railings and railing fastener attachments 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 includes the following activities per event:

- Partial depth replacement of up to one percent (1%) of the concrete topsides
- Crack repairs as necessary
- Repairs to the railings as necessary
- Replacement of perimeter sealants as needed
- Application of a waterproof coating (Urethane based elastomeric)

## **Breezeways, Railings, Wood**

---

**Line Item:** 1.105

**Quantity:** Approximately 120 linear feet of wood railings at Building One

**History:** Original

**Condition:** Good overall with no significant deterioration evident.



**Steel railings at Building Two (Long lived)**



**Wood railings at Building One**

**Useful Life:** Up to 35 years

**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.

## Gutters and Downspouts

---

**Line Item:** 1.240

**Quantity:** Approximately 150 linear feet of gutters and downspouts at the front elevations at each building.

**History:** Original

**Condition:** Good overall. We note damage at the Building Two gutter. We recommend interim repairs are conducted through the operating budget.



**Gutter damage and heat tape at Building Two**

**Useful Life:** Up to 15 years

**Component Detail Notes:** The size of the gutter is determined by the roof's watershed area, a roof pitch factor and the rainfall intensity number of the Association's region. We recommend sloping gutters 1/16 inch per linear foot and providing fasteners a maximum of every three feet.

Downspouts can drain 100 square feet of roof area per one square inch of downspout cross sectional area. We recommend the use of downspout extensions and splash blocks at the downspout discharge to direct storm water away from the foundations. Downspouts that discharge directly onto roofs cause premature deterioration of the roofs due to the high concentration of storm water. We recommend either routing these downspouts directly to the ground, connecting the downspouts to the gutters of the lower roof or distributing the storm water discharge over a large area.



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

- Semi-annually:
  - Clean out debris and leaves that collect in the gutters
  - Repair and refasten any loose gutter fasteners
  - Repair and seal any leaking seams or end caps
  - Verify downspouts discharge away from foundations

**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.

## Light Fixtures

---

**Line Item:** 1.260

**Quantity:** Approximately 28 exterior light fixtures accent the patios, balconies and building facade at each building

**History:** Original

**Condition:** Good overall with no visible deterioration



**Building One wall mounted light fixture**



**Building Two wall mounted light fixture**

**Useful Life:** Up to 20 years

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

- As-needed:
  - Replace burned out bulbs at common fixtures as needed
  - Inspect and repair broken or dislodged fixtures
  - Ensure a waterproof seal between the fixture and building exists

**Priority/Criticality:** Per Board discretion

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

## Roofs, Stone Coated Steel

---

**Line Item:** 1.460

**Quantity:** Approximately 130 *squares*<sup>1</sup> of stone coated metal roofing tiles. The Board informs us the roofing tiles are manufactured by *Gerard*.

**History and Condition:** The roof at Building One was replaced in 2011 with a cold roofing system. The Board informs us of recent ice damming issues and a current insurance claim for repairs. For purposes of this study, we assume repairs are conducted in the near term via means outside of reserves.



Stone coated metal roofing

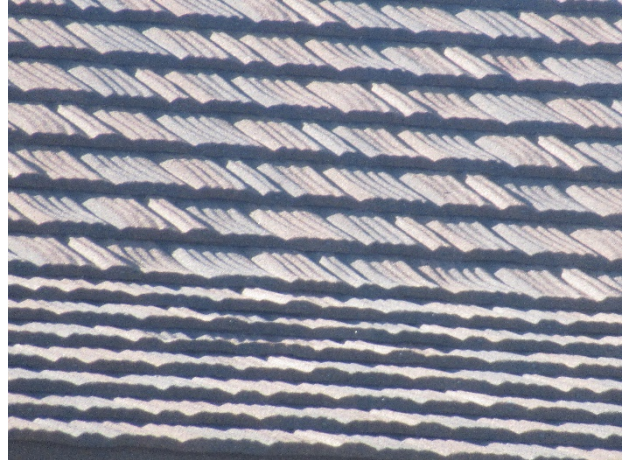


Roof tiles

<sup>1</sup> We quantify the roof area in squares where one square is equal to 100 square feet of surface area.



**Roof overview**



**Roof overview**



**Roof overview**



**Roof overview**

**Useful Life:** 20- to 30-years with the benefit of ongoing inspections, maintenance and repairs

**Preventative Maintenance Notes:** We recommend the Association maintain a service and inspection contract with a qualified professional and record all documentation of repairs conducted. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
  - Record any areas of water infiltration, flashing deterioration, damage or loose fasteners
  - Implement repairs as needed if issues are reoccurring
  - Ensure proper ventilation and verify vents are clear of debris and not blocked from attic insulation
  - Clear valleys of debris
  - Periodic cleaning at areas with organic growth

**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.

## Walls, Stone Veneer

---

**Line Item:** 1.800

**Quantity:** Approximately 2,400 square feet of stone veneer per building

**History:** Original

**Condition:** Good overall with no significant stone damage noted. We note isolated areas of mortar loss and efflorescence staining.



**Stone facade**



**Capstone mortar loss**



**Sill mortar loss**



**Stone efflorescence**

**Useful Life:** The Association should anticipate inspection and repairs to the masonry veneer every 10- to 15-years.

**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 assume a complete inspection of all the masonry veneer and repairs at up to five percent (5.0%) per event.

## Walls, Siding, Wood

---

**Line Items:** 1.865 and 1.866

**Quantity:** Each building comprises approximately 14,000 square feet of wood lap style and faux log style siding. The buildings also utilize wood timber columns, railings and wood soffits and fascia.

**History:** The Board informs us the Association has historically painted one side of Building One per year. However, due to contractor availability and reduce mobilization costs future painting projects are planned to be coordinated moving forward. We agree with this approach and recommend interim, partial touch-up events are funded through the operating budget.

**Condition:** The siding is in good to fair overall condition. We note isolated areas of chinking deterioration and weathered wood components. The finish is in fair condition with areas of finish wear primarily at areas with extended exposure to snow and ice during winter months.



Finish wear at siding at Building Two



Privacy wall finish loss at Building Two



**Finish wear at siding at Building Two**



**Lap wood siding at Building One**



**Finish deterioration at shake siding at Building One**



**Log style siding at Building One**



**Isolated chinking deterioration**



**Corner trim finish wear at Building One**



**Siding finish loss near downspout at Building One**



**Lap style wood siding at Building Two**

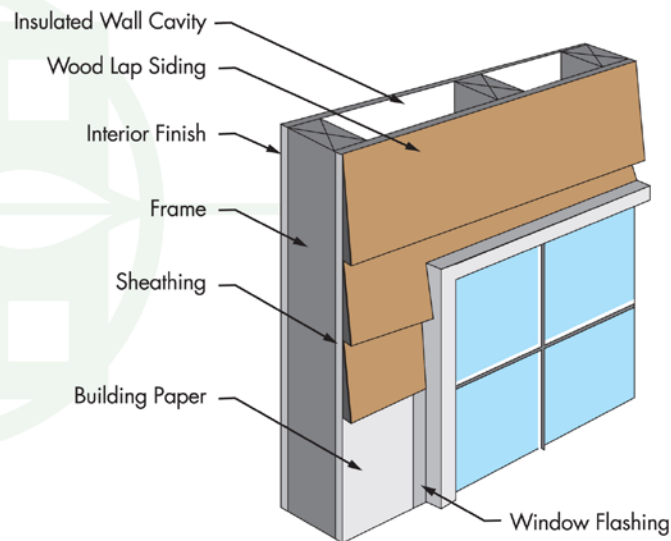


**Gap between trim and siding at Building Two**

**Useful Life:** Coordinated paint applications every three- to five-years with the benefit of siding repairs and partial chinking replacements every 5- to 10-years

**Component Detail Notes:** Wood siding is not watertight and is especially prone to water penetration at joints and knots. Therefore, wood siding should be installed over a continuous weather resistant barrier. The weather resistant barrier should include water-vapor permeable building paper and properly integrated flashing around all penetrations. The following graphic details the typical components of a wood siding system:

## LAP SIDING DETAIL



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Chinking is the cement mortar or synthetic material utilized in between the gaps in log style construction. This process maintains the weatherproofing of the exterior envelope as well as reduces pest access to the interior framing structure. The rate of deterioration of the mortar is not uniform due to the different exposures to sunlight and weather. High exposure areas of chinking can last up to 20 years and lower exposure areas can last up to and beyond 50 years. The Association should anticipate gradual dispersed deterioration as the mortar ages and cracks.

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

- Annually:
  - Inspect and repair loose siding, warping, wildlife damage and sealant deterioration
  - Inspect and repair finish deterioration, peeling and chipping
  - Touch-up paint finishes as necessary to ensure a uniform finish in between complete finish applications

**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 estimate of cost for repair events assume partial replacement of up to three percent (3%) of the siding and replacement of the chinking at up to twenty percent (20%) of the log-style portion of the façade. Updates to this Reserve Study will consider possible changes in the scope and times of component replacements.



## Windows and Doors

---

**Line Item:** 1.980

**Quantity:** Approximately 400 square feet of common windows and doors per building

**History:** Original

**Condition:** Good overall with no visible deterioration



Common windows at stairwell



Wood frame windows



Common aluminum frame window



Aluminum cladding at common window

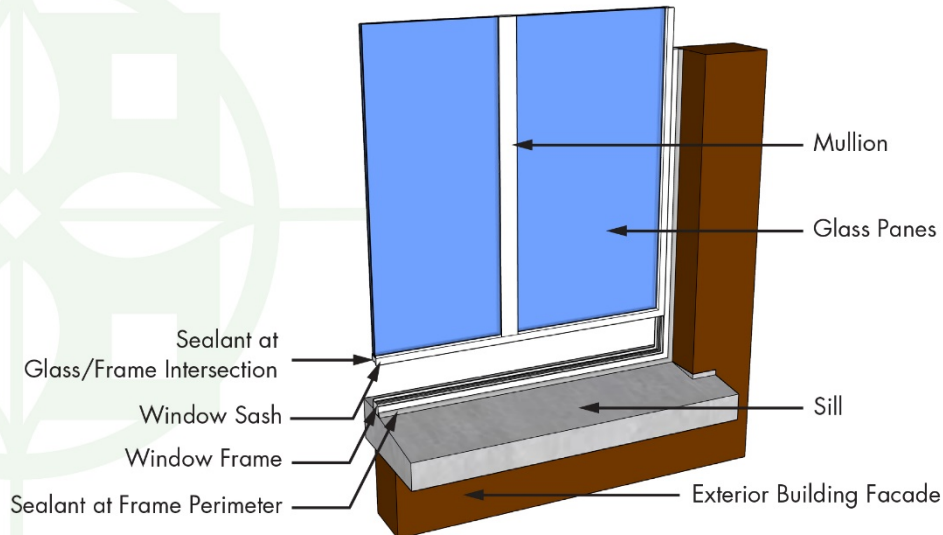
**Useful Life:** Up to 45 years

**Component Detail Notes:** Construction includes the following:

- Wood frames with aluminum cladding
- Dual pane glass
- Hinged doors

The following schematic depicts the typical components of a window system although it may not reflect the actual configuration at Elkhorn Creek:

## WINDOW DETAIL



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Properly designed window and door assemblies anticipate the penetration of some storm water beyond the gaskets. This infiltrated storm water collects in an internal drainage system and drains, or exits, the frames through weep holes. These weep holes can become clogged with dirt or if a sealant is applied, resulting in trapped storm water. However, as window frames, gaskets and sealants deteriorate, leaks into the interior can result. The windows and doors will eventually need replacement or major capital repairs to prevent water infiltration and damage from wind driven rain.

The thermal efficiencies of the window and door assemblies are affected by their design and construction components. These components include glazings, thickness of air space between glazings, low-conductivity gas, tinted coatings, low-e coatings and thermal barriers. The Association should thoroughly investigate these component options at the time of replacement. Some manufacturers may include these components as part of the standard product and other manufacturers may consider these components as options for an additional cost. Elkhorn Creek should review the specifications provided by the manufacturers to understand the thermal design and construction components of the proposed assemblies.

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

- Annually:

- Inspect and repair loose weather stripping and/or lock damage
- Inspect for broken glass and damaged screens
- Record instances of water infiltration, trapped moisture or leaks
- As-needed:
  - Verify weep holes are unobstructed and not blocked with dirt or sealant, if applicable
  - Replace damaged or deteriorated sliding glass rollers, if applicable

**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.

## Interior Building Elements

### Elevator Cab Finishes

---

**Line Item:** 2.100

**Quantity:** One elevator at each building; the cab finishes consist of:

- Tile floor coverings
- Laminate wall coverings
- Metal ceiling finishes

**History:** Original

**Condition:** Fair overall at Building One and good overall at Building Two



**Elevator cab finishes at Building One**



**Wall damage at Building One**



**Elevator cab finishes at Building Two**

**Useful Life:** Up to 20 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association funds interim replacement of the carpet floor coverings through the operating budget.

## **Elevator Landings**

---

**Line Item:** 2.600

**Quantity:** The elevator landing lobby components include:

- Tile floor coverings
- Paint finishes at the walls and ceilings
- Furnishings
- Light fixtures

**History:** Primarily original with recent lighting upgrades

**Condition:** Good overall with no significant deterioration evident.



**Elevator landing lighting**



**Elevator landing at Building One**



**Elevator landing at Building Two**



**Tile flooring at Building Two**

**Useful Life:** Renovation up to every 20 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend interim paint finishes and partial renovations are funded through the operating budget.

## Building Services Elements

### Boilers, Building Heat

---

**Line Item:** 3.105

**Quantity:** One gas-fired boiler and circulation pumping system for the snow melt system and landing heating system per building

**History and Condition:** The Board informs us of the need for replacement of the glycol at the Building One system in the near term. The estimate of cost is based on information provided by the Board. The boiler at Building One is expected to likely require replacement in the next five years.



**Circulation pump serial tag**



**Boiler for snow melt system, garage and elevator landing heating for Building One**



**Boiler at Building Two**



**Building Two circulation pump**



**Building One circulation pumps**

**Useful Life:** 18- to 25-years

**Component Detail Notes:** The boiler has an *input* capacity of 399-MBH (thousand British Thermal Units per hour) and an efficiency of ninety percent (90%). The lack of replacement parts, increased efficiencies of new units, increased maintenance costs and corrosion of components will eventually justify complete replacement.

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. The Association has a current preventative maintenance contract in place. We also recommend the Association maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Weekly:
  - Inspect for leaking water around boilers
  - Check temperature readings
  - Verify vent is unobstructed
  - Conduct boiler blowdown to minimize corrosion and remove suspended solids in system
  - Clean pilot and burner assemblies
- Monthly:
  - Check water and pressure levels
  - Check controls and switches for proper operating
  - Check and inspect condensate drain
  - Check all gaskets for tight sealing
- Annually:
  - Conduct full inspection of burners and flues
  - Clean and inspect tubes to reduce scaling
  - Inspect any pressure relief valves
  - Clean and recondition feed water pumps
  - Inspect electrical terminals and controls
  - Seal doors/access panels

- Adjust air/fuel ratios 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 estimate of cost includes an allowance for replacement of the controls and circulation pumping systems.

## Elevator, Hydraulic

---

**Line Items:** 3.320 and 3.330

**Quantity:** One ThyssenKrupp hydraulic passenger elevator

**History:** Original

**Condition:** Reported satisfactory and service interruptions are reportedly infrequent



Hydraulic elevator equipment at Building One



Hydraulic elevator equipment for Building Two

**Useful Life:** Pumps and controls have a useful life of 25- to 30-years. Cylinders have a useful life of up to 45 years.

**Component Detail Notes:** Major components in a hydraulic elevator system include the pump, controls, cylinder, fluid reservoir and a valve between the cylinder and reservoir. Once activated by the elevator controls, the pump forces hydraulic fluid from the reservoir into the cylinder. The piston within the cylinder rises lifting the elevator cab. The elevator cab lowers at a controlled rate when the controls open the valve.

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. The Association has a current preventative maintenance contract in place. We also recommend the Association maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational



condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Ongoing:
  - Maintain a maintenance contract with a qualified professional for the elevator(s) and follow the manufacturer's specific recommended maintenance plan adhering to local, state, and/or federal inspection guidelines
- As-needed:
  - Keep an accurate log of all repairs and inspection dates
  - Inspect and adjust misaligned door operators
  - Check for oil leaks or stains near the pump housing and confirm oil levels are adequate
  - Clear and remove any items located in the elevator machine room(s) not associated with the elevator components (These rooms should never be used for storage)
  - Lubricate the hydraulic cylinders
  - Inspect electrical components for signs of overheating or failure
  - Inspect spring buffers in elevator pit for signs of corrosion or loose attachments
  - Ensure air temperature and humidity of machine/pump housing room meets the designated specified range for proper operation
  - Ensure all call buttons are in working condition
  - Check elevator cabs for leveling accuracy to prevent tripping hazards

**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 anticipate the following hydraulic elevator system components will require replacement:

- Cab control panel
- Door operator
- Hallway panels/buttons
- Microprocessor based controller
- Pump (Power Unit) (25-HP)

These costs may vary based on the desired scope of the actual replacements, changes in technology and requirements of local codes or ordinances at the actual times of replacements. However, we judge our estimated costs sufficient to budget appropriate reserves at this time. The Association should require the contractor to verify that elevator component replacements include all of the necessary features for the latest in elevator code compliance.

## Life Safety System

---

**Line Item:** 3.560

**Quantity:** The life safety system at Elkhorn Creek includes the following components:

- Control panel
- Detectors
- Emergency light fixtures
- Exit light fixtures
- Pull stations
- Wiring

**History:** Original. The Association conducted emergency light repairs at Building One in 2023.

**Conditions:** Reported satisfactory without operational deficiencies.



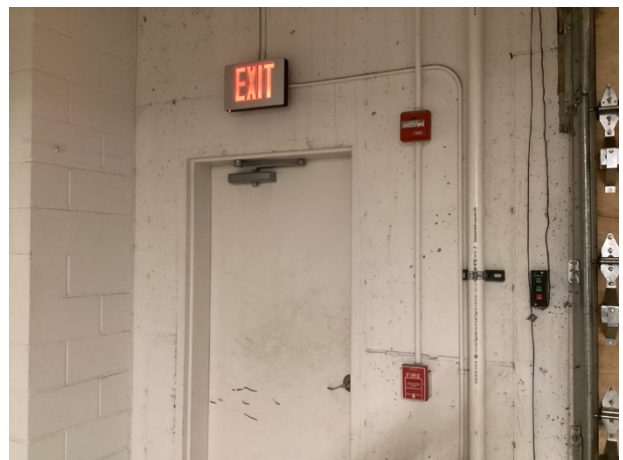
**Control panel at Building One**



**Exit signage**



**Emergency lighting**



**Emergency devices**

**Useful Life:** Up to 25 years

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. In accordance with *NFPA 72* (National Fire Alarm and Signaling Code) we also recommend the Association maintain a maintenance contract with a qualified professional. The display panel read 'System Normal' at the time of our inspection. The required preventative maintenance may vary in frequency and scope based on the age of the components, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Semi-annually:
  - Inspect and test all components and devices, including, but not limited to, control panels, annunciators, detectors, audio/visual fixtures, signal transmitters and magnetic door holders
  - Test backup batteries
- As-needed:
  - Ensure clear line of access to components such as pull stations
  - Ensure detectors are properly positioned and clean of debris

**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. Changes in technology or building codes may make a replacement desirable prior to the end of the functional life. Our estimate of future cost considers only that amount necessary to duplicate the same functionality. Local codes or ordinances at the actual time of replacement may require a betterment as compared to the existing system. A betterment could result in a higher, but at this time unknown, cost of replacement.

## Property Site Elements

### Asphalt Pavement, Repaving

---

**Line Items:** 4.040 and 4.045

**Quantity:** Approximately 1,400 square yards at the access drive and parking areas

**History:** Original. The Association conducted a patch repair in 2023.

**Condition:** Good to fair overall with periodic cracks evident.



**Asphalt pavement access drive overview**



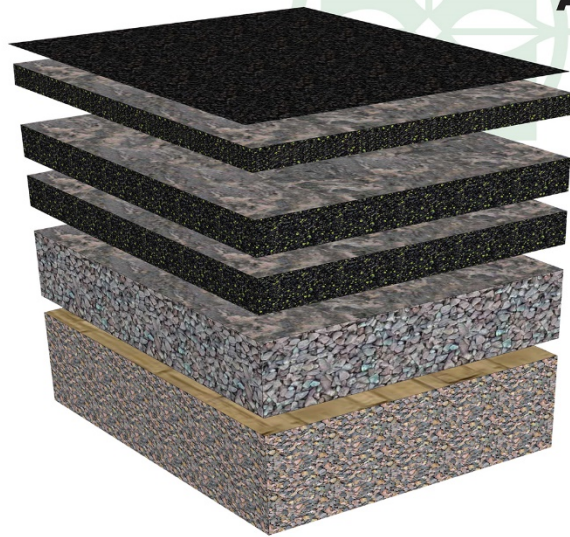
**Pavement cracks**



**Pavement cracks**

**Useful Life:** 15- to 20-years with the benefit of timely crack repairs and patching. We defer the initial timing of repaving based on the current condition and consideration of the limited amount of traffic in the early stages of the pavement's lifecycle

**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 Elkhorn Creek:



## 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

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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 mill and overlay method for initial repaving followed by the total replacement method for subsequent repaving at Elkhorn Creek.

**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

**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.

## Catch Basins

---

**Line Item:** 4.100

**Quantity:** Six catch basins<sup>2</sup>

**History:** Original

**Condition:** Fair overall. We note an area of heaving at the catch basin near the lift station.



**Heaves near catch basin**

**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

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

<sup>2</sup> We utilize the terminology catch basin to refer to all storm water collection structures including curb inlets.

**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 1,000 linear feet

**Condition:** Fair overall with periodic cracks, spalled concrete and damage evident.



**Concrete curb and gutter**



**Curb spalls and cracks**



**Concrete cracks**

**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 500 linear feet of curbs and gutters, or fifty percent (50%) of the total, will require replacement during the next 30 years.

## Concrete Flatwork

---

**Line Item:** 4.125

**Quantity:** Approximately 1,600 square feet at the sidewalks and entry stairs

**Condition:** Fair overall with frequent cracks, spalled concrete and previous repairs evident.



Sidewalk spalls and cracks



Building Two previous grinding repairs





**Exposed rebar at Building One entry sidewalk**



**Sidewalk spalls**

**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 1,280 square feet of concrete flatwork, or eighty percent (80%) of the total, will require replacement during the next 30 years.

## **Lift Station, Rebuild**

---

**Line Items:** 4.540 and 4.550

**Quantity:** One each with the assumption of two total pumps

**History and Condition:** The lift station was recently inspected and was determined in good operational condition with no issues. We assume the pumps and controller are likely original.



**Lift station controls**



**Lift station pumps**

**Useful Life:** Up to 30 years for rebuilding of the station and up to 10 years for the pumps

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Semi-annually:
  - Inspect lifting chain/cable and guide rails
  - Inspect check valves for wear and damage
  - Check all controls and electrical components
  - Clean and remove grease and other debris 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. Rebuilding of the station includes replacement of pumps, motors, guide rails and electrical components including controls. The Association should fund interim repairs and replacements through the operating budget.

## **Light Poles and Fixtures**

---

**Line Item:** 4.560

**Quantity:** Three poles with light fixtures

**History:** Original

**Condition:** Good overall



**Light pole and fixture**

**Useful Life:** Up to 30 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.

## **Railings, Steel**

---

**Line Item:** 4.733

**Quantity:** Approximately 80 linear feet at the building entries

**History:** Original. The Association plans to powder coat the Building One railing in 2024 through the operating budget.

**Condition:** The Building One railing is in fair to poor condition and has significant rust deterioration. The Building Two railing is in good to fair condition with finish deterioration.



**Building One entry railing**



**Building Two railing base rust**



**Building Two railing**



**Railing finish deterioration**



**Significant base rust**

**Useful Life:** Up to 20 years for replacement

**Component Detail Notes:** Steel components at grade and key structural connections are especially prone to failure if not thoroughly maintained. Secure and rust-free

fasteners and connections will prevent premature deterioration. Preparation of the steel before application of the paint finish is critical to maximize the useful life of the finish.

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

- Annually:
  - Inspect for damage, and excessive finish deterioration or corrosion
  - Test security of railings and inspect connection fasteners

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend paint finishes and repairs are funded through the operating budget.

## Garage Elements

### Concrete, On-grade

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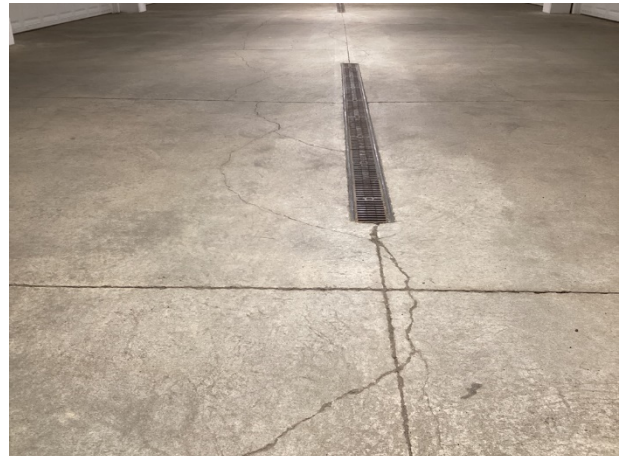
**Line Item:** 7.360

**Quantity:** Approximately 6,000 square feet of on-grade concrete per garage which includes the private garage areas

**Condition:** Good to fair overall with isolated cracks, spalls and rust at drain covers evident.



On-grade garage floor overview



Concrete cracks at Building Two



**Cracks near drainage vault**



**Cracks near drain**

**Useful Life:** Up to 90 years

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

- Semi-annually:
  - Clean floors and remove vehicular oil stains
- Annually:
  - Inspect for large cracks, concrete spalls and vehicular damage at walls and columns
  - Verify drains are working properly and check for areas of extensive water ponding

**Priority/Criticality:** Per Board discretion

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

- Complete inspection of the floor
- Selective cut out and replacement of up to five percent (5%), or 300 square feet, of the on-grade concrete
- Crack repairs as needed

## **Door and Operator**

---

**Line Item:** 7.400

**Quantity:** One overhead sectional garage door with operator per building

**History:** Original

**Condition:** Good overall with no significant deterioration



**Garage door operator at Building Two**



**Garage door at Building One**

**Useful Life:** 8- to 15-years

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

- Annually:
  - Lubricate chains, rollers and hinges
- As Needed
  - Clean tracks of any dirt and debris
  - Inspect door alignment
  - Replace springs
  - Replace sensor batteries (If applicable)

**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 fund interim replacements of components through the operating budget.

## **Exhaust System**

---

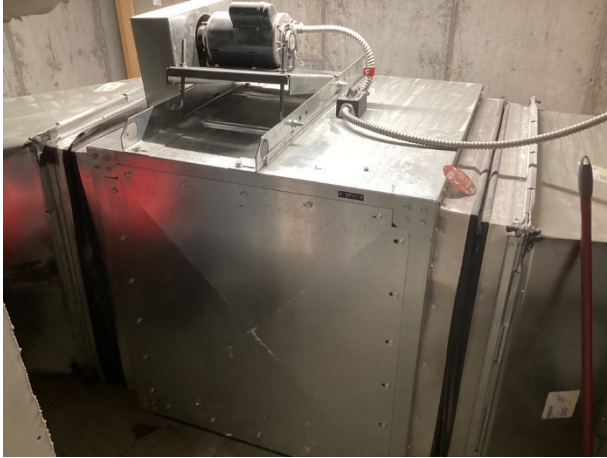
**Line Item:** 7.460

**Quantity:** System includes:

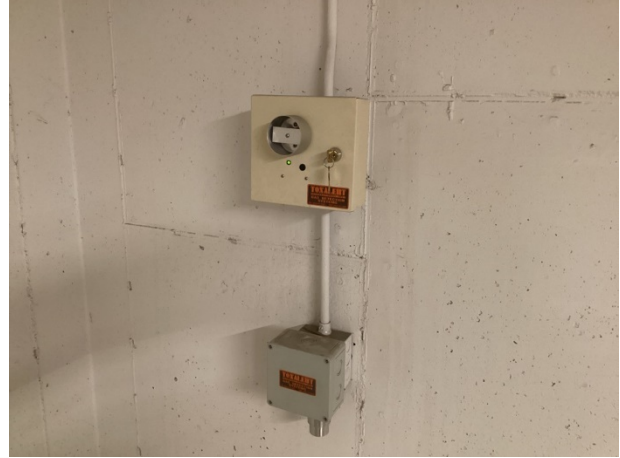
- Carbon monoxide detectors
- Exhaust fans
- Louvers

**History:** Original

**Condition:** Reported satisfactory without operational deficiencies



**Garage exhaust fan**



**Carbon monoxide detector**

**Useful Life:** Up to 35 years

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Association maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Monthly:
  - Check unit for unusual noises and vibrations
- Quarterly:
  - Test carbon monoxide detectors for proper operation
  - Inspect belts for wear, adjust tension and replace as needed
  - Inspect/clean fan blades
  - Inspect/replace anti-vibration mounts as needed
  - Check motors for proper operation
  - Replace filters as applicable
- Semi-annually:
  - Lubricate fan and motor bearings if bearings are not sealed according to manufacturer's recommendation
  - Inspect/clean inlets, shafts and outlets
  - Ensure louvers and dampers are unclogged and operable

**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 regard interim repairs or partial replacements of components, including CO detectors, as normal maintenance.



## Ramp, Snow Melt System

---

**Line Item:** 7.700

**Quantity:** Approximately 800 square feet of concrete with snow melt systems at the ramp to each building's garage

**History:** Original

**Condition:** Fair overall with cracks and spalls evident at the Building One ramp.



Garage ramp with snow melt system at Building One



Building One ramp spalls



Garage ramp with snow melt system at Building Two



Cracks at Building Two ramp

**Useful Life:** 20- to 25-years

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

- Annually:
  - Inspect ramp for large cracks or areas of excessive deterioration

- We recommend the Association maintain a maintenance contract with a qualified professional for the heating system and adhere to the manufacturer's specific recommended maintenance plan.

**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 includes replacement of the snow melt system and concrete.

## 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.

Elkhorn Creek 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 standards<sup>1</sup> 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
- Local<sup>2</sup> 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 Big Sky, Montana at an annual inflation rate<sup>3</sup>. Isolated or regional markets of

<sup>1</sup> Identified in the APRA "Standards - Terms and Definitions" and the CAI "Terms and Definitions".

<sup>2</sup> See Credentials for additional information on our use of published sources of cost data.

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

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

- The past and current maintenance practices of Elkhorn Creek 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.

**TANNER A. OLDENBURGER, PE, RS**  
**Vice President of Engineering**

**CURRENT CLIENT SERVICES**

Tanner A. Oldenburger, a Professional Civil Engineer, is an Advisor for Reserve Advisors. Mr. Oldenburger 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 and homeowner associations.



The following is a partial list of over 750 clients served by Tanner Oldenburger demonstrating his breadth of experiential knowledge of community associations in construction, remediation procedures and related buildings systems.

**North Star Lofts Owner's Association** - Located in the historic Mill District in Minneapolis, Minnesota, this distinctive building contains 37 loft-style condominiums in an eight-story building. The building was originally a blanket factory in the 1920's and was converted to residential units in the late 1990's. The building exterior comprises masonry walls, rooftop decks and a historically preserved tower and sign.

**MacLaren Hill Condominium Association** - This development contains a combination of three apartment-style buildings and eight townhome style buildings located in St. Paul, Minnesota. This Association maintains a shared ownership agreement between the two building types that include all the property site and garage elements.

**Portland Tower Association** - This 17-story high-rise in downtown Minneapolis, Minnesota includes rooftop deck, curtain wall exterior and parking garage. The building also utilizes a high-efficiency central HVAC system with 22 variable frequency drives.

**Bearpath Homeowners Association** - Located in Eden Prairie, Minnesota, this exclusive community comprises four cost centers for the single family homes, golf villas, fairway villas and townhomes.. The Association maintains the villa and townhome exterior building elements as well as a gate house and approximately four miles of private streets.

**Cochran Park Condominium Association** - Located in St. Paul, Minnesota, these two distinguished condominium buildings were constructed in 1914. The Association maintains garage structures, the stucco exteriors and clay tile mansard roof, as well as the common electrical and piping systems throughout the buildings.

**PRIOR RELEVANT EXPERIENCE**

Before joining Reserve Advisors, Mr. Oldenburger attended Montana State University in Bozeman, Montana where he attained his Bachelor of Science degree in Civil Engineering and his Masters of Science degree in Civil Engineering with a focus on Structural Engineering. His relevant employment history includes working for the structural design team at Compass Consulting Engineers. He was responsible for the design and analysis of custom residential and commercial projects throughout the Northwest.

**EDUCATION**

Montana State University - B.S. Civil Engineering  
Montana State University - M.S. Civil Engineering

**PROFESSIONAL AFFILIATIONS/DESIGNATIONS**

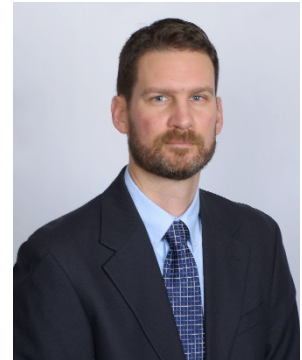
*Professional Engineering License (PE) – Minnesota, Florida*  
*Reserve Specialist (RS) - Community Associations Institute*

**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

**CHRISTOPHER C. DEWALL, P.E., PRA, RS**  
**Vice President of Product Development**

**CURRENT CLIENT SERVICES**

Christopher C. DeWall, a Professional Engineer, is a Vice President for Reserve Advisors. Mr. DeWall has been with Reserve Advisors since 2008 and is responsible for the inspection and analysis of the property's current condition, recommending engineering solutions to prolong the lives of building components, forecasting capital expenditures for the repair and/or replacement of the property components, and technical report preparation on assignments. He is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services and the preparation of Reserve Study Reports for high and midrise buildings, country clubs, and townhomes and homeowner associations. Christopher DeWall often serves as Quality Assurance Reviewer for all types of developments to ensure our reports maintain the level of quality which is expected of our firm.



The following is a partial list of clients served by Christopher DeWall demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.

**North Bank Condominium Home Owners Association** - The definition of old meets new in two conjoined buildings in the arena district of Columbus, Ohio. A 20-story tower of wall-to-ceiling windows was built in 2006 next to the historic A&P grocery warehouse originally constructed in 1926. This unique combination of 103 units provides the option of a converted warehouse style loft or a high-rise apartment with stunning views of the Columbus skyline.

**Riverwalk Plaza Condominium Association** - This consists of two converted warehouse buildings from the late 1800s in the Third Ward of Milwaukee, Wisconsin. The Association houses 75 loft style units with exposed Cream City brick and is situated directly on the Milwaukee River.

**Carillon Adult Master Association** - A planned unit development of 2,100+ homes between 16 separate associations in Plainfield, Illinois. This active adult community includes a 32,000-square foot clubhouse complete with wood shop, ceramics room, exercise room, indoor pool and theater. Additional amenities include two outdoor pools, bocce and shuffleboard courts, and tennis/pickle ball courts nestled amongst a private 27-hole golf course.

**Prairie Park at Wheeling Condominium Association** - This midrise community of 240 units in four buildings is located in Wheeling, Illinois. The property includes an elaborate waterfall at the entrance to the community and a clubhouse with indoor pool for year round entertainment.

**Belfair Property Owners Association** - A private golf community situated on the Belfair Plantation is five miles from Hilton Head Island. Magnificent oak trees over one hundred years old line the entrance to this property that dates back to the plantation built in 1811. The community amenities include a recently expanded clubhouse, two 18-hole golf courses, pool and exercise buildings and a state-of-the-art 29-acre practice facility. Belfair offers freshwater lakes, saltwater marshes and South Carolina wildlife.

**PRIOR RELEVANT EXPERIENCE**

Before joining Reserve Advisors, Mr. DeWall attended the University of Wisconsin in Madison, Wisconsin where he attained his Bachelor of Science degree in Mechanical Engineering. At the University of Wisconsin, Mr. DeWall helped design and fabricate a wheelchair with a seat capable of raising and lowering to and from the ground. Mr. DeWall is also the proud owner of a patent for a trigger lock on a pressure washer gun he developed while interning at Briggs and Stratton Power Products.

**EDUCATION**

University of Wisconsin - B.S. Mechanical Engineering

**PROFESSIONAL AFFILIATIONS**

*Professional Engineer (P.E.)* – Wisconsin, Illinois and Florida

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

*Reserve Specialist (RS)* - Community Associations Institute





## 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](http://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](http://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](http://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](http://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 Elkhorn Creek 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) Elkhorn Creek 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 subject property. The purpose of our energy benchmarking services is to track, collect and summarize the subject property's energy consumption over time for your use in comparison with other buildings of similar size and establishing a performance baseline for your planning of long-term energy efficiency goals.

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. Our energy benchmarking services with respect to the subject property is limited to collecting energy and utility data and summarizing such data in the form of an Energy Star Portfolio Manager Report or any other similar report, and hereby expressly excludes any recommendations with respect to the results of such energy benchmarking services or the accuracy of the energy information obtained from utility companies and other third-party sources with respect to the subject property. The reserve report and any energy benchmarking report (i.e., any Energy Star Portfolio Manager Report) (including any subsequent revisions thereto pursuant to the terms hereof, collectively, the "Report") are based upon a "snapshot in time" at the moment of inspection. RA may note visible physical defects in the Report. The inspection is made by employees generally familiar with real estate and building construction. Except to the extent readily apparent to RA, RA cannot and shall not opine on the structural integrity of or other physical defects in the property under any circumstances. Without limitation to the foregoing, RA cannot and shall not opine on, nor is RA responsible for, the property's conformity to specific governmental code requirements for fire, building, earthquake, occupancy or otherwise.

RA is not responsible for conditions that have changed between the time of inspection and the issuance of the Report. RA does not provide invasive testing on any mechanical systems that provide energy to the property, nor can RA opine on any system components that are not easily accessible during the inspection. 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 vapor, water, oil, gas, coal, or other subsurface mineral and use rights or such hidden conditions, and RA assumes no responsibility for any such conditions. The Report contains opinions of estimated replacement costs or deferred maintenance expenses and remaining useful lives, which are neither a guarantee of the actual costs or expenses of replacement or deferred maintenance nor a guarantee of remaining useful lives of any property element.

RA assumes, without independent verification, the accuracy of all data provided to it. Except to the extent resulting from RA's willful misconduct in connection with the performance of its obligations under this agreement, you agree to indemnify, defend, and hold RA and its affiliates, officers, managers, employees, agents, successors and assigns (each, an "RA Party") harmless from and against (and promptly reimburse each RA Party for) any and all losses, claims, actions, demands, judgments, orders, damages, expenses or liabilities, including, without limitation, reasonable attorneys' fees, asserted against or to which any RA Party may become subject in connection with this engagement, including, without limitation, as a result of any false, misleading or incomplete information which RA relied upon that was 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 or to whom you provided the Report. NOTWITHSTANDING ANY OTHER PROVISION HEREIN TO THE CONTRARY, THE AGGREGATE LIABILITY (IF ANY) OF RA WITH RESPECT TO THIS AGREEMENT AND RA'S OBLIGATIONS HEREUNDER IS LIMITED TO THE AMOUNT OF THE FEES ACTUALLY RECEIVED BY RA FROM YOU FOR THE SERVICES AND REPORT PERFORMED BY RA UNDER THIS AGREEMENT, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE. YOUR REMEDIES SET FORTH HEREIN ARE EXCLUSIVE AND ARE YOUR SOLE REMEDIES FOR ANY FAILURE OF RA TO COMPLY WITH ITS OBLIGATIONS HEREUNDER OR OTHERWISE. RA SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, ANY LOST PROFITS AND LOST SAVINGS, LOSS OF USE OR INTERRUPTION OF BUSINESS, HOWEVER CAUSED, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE), BREACH OF WARRANTY, STRICT LIABILITY OR OTHERWISE, EVEN IF RA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT WILL RA BE LIABLE FOR THE COST OF PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES. RA DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES WHATSOEVER, EXPRESS OR IMPLIED OR OF ANY NATURE, WITH REGARD TO THE SERVICES AND THE REPORT, INCLUDING, WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

**Report** - RA will complete the services in accordance with the Proposal. The Report represents a valid opinion of RA's findings and recommendations with respect to the reserve study and is deemed complete. RA will consider any additional information made available to RA within 6 months of issuing the Report and issue a revised Report based on such additional information if a timely request for a revised Report is made by you. 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. RA reserves the right to, and you acknowledge and agree that RA may, use any data provided by you in connection with the services, or gathered as a result of providing such services, including in connection with creating and issuing any Report, in a de-identified and aggregated form for RA's business purposes.

**Your Obligations** - You agree to provide us access to the subject property for an 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. Additionally, you agree to provide historical replacement schedules, utility bills and historical energy usage files that RA requests and deems necessary to complete the energy benchmarking services, and you agree to provide any utility release(s) reasonably requested by RA permitting RA to obtain any such data and/or information from any utility representative or other third party. 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 the Report is limited to only the purpose stated herein. You acknowledge that RA is the exclusive owner of all intellectual property rights in and relating to the Report. You hereby acknowledge that any use or reliance by you on the Report for any unauthorized purpose is at your own risk and that you will be liable for the consequences of any unauthorized use or distribution of the Report. Use or possession of the Report by any unauthorized third party is prohibited. 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 the Report in its entirety to the following third parties: members of your organization (including your directors, officers, tenants and prospective purchasers), your accountants, attorneys, financial institutions and property managers who need to review the information contained herein, and any other third party who has a right to inspect the Report under applicable law including, but not limited to, any government entity or agency, or any utility companies. Without the written consent of RA, you shall not disclose the Report to any other third party. By engaging our services, you agree that the Report contains intellectual property developed (and owned solely) by RA and agree that you will not reproduce or distribute the Report **to any party that conducts reserve studies without the written consent of RA**.

RA will include (and you hereby agree that RA may include) your name in our client lists. RA reserves the right to use (and you hereby agree that RA may 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** - If reserve study and energy benchmarking services are performed by RA, then the retainer payment is due upon execution of this agreement and prior to the inspection by RA, and any balance is due net 30 days from the Report shipment date. If only energy benchmarking services are performed by RA, then the retainer payment is due upon execution of this agreement and any balance is due net 30 days from the Report shipment date. In any case, any balance remaining 30 days after delivery of the Report shall accrue an interest charge of 1.5% per month. Unless this agreement is earlier terminated by RA in the event you breach or otherwise fail to comply with your obligations under this agreement, RA's obligations under this agreement shall commence on the date you execute and deliver this agreement and terminate on the date that is 6 months from the date of delivery of the Report by RA. Notwithstanding anything herein to the contrary, each provision that by its context and nature should survive the expiration or early termination of this agreement shall so survive, including, without limitation, any provisions with respect to payment, intellectual property rights, limitations of liability and governing law.

**Miscellaneous** – Neither party shall be liable for any failures or delays in performance due to fire, flood, strike or other labor difficulty, act of God, act of any governmental authority, riot, embargo, fuel or energy shortage, pandemic, wrecks or delays in transportation, or due to any other cause beyond such party's reasonable control; provided, however, that you shall not be relieved from your obligations to make any payment(s) to RA as and when due hereunder. In the event of a delay in performance due to any such cause, the time for completion or date of delivery will be extended by a period of time reasonably necessary to overcome the effect of such delay. You may not assign or otherwise transfer this agreement, in whole or in part, without the prior written consent of RA. RA may freely assign or otherwise transfer this agreement, in whole or in part, without your prior consent. This agreement shall be governed by the laws of the State of Wisconsin without regard to any principles of conflicts of law that would apply the laws of another jurisdiction. Any dispute with respect to this agreement shall be exclusively venued in Milwaukee County Circuit Court or in the United States District Court for the Eastern District of Wisconsin. Each party hereto agrees and hereby waives the right to a trial by jury in any action, proceeding or claim brought by or on behalf of the parties hereto with respect to any matter related to this agreement.