

Cedars Townhomes HOA

CAPITAL RESERVE STUDY



Beginning Period: July 1, 2023
Ending: June 30, 2053

Prepared By:



Report Number: 23-09
Site Inspection Date: May 12th, 2023
Report Submittal Date: May 24th, 2023

Table of Contents

1.0	Executive Summary	1
1.1	Overview	1
1.2	Major Expenditure Milestones	1
1.3	Capital Reserve Account Savings Recommendations	2
2.0	Purpose of Capital Reserve Study.....	3
3.0	Physical Analysis	5
3.1	Site Visit.....	5
3.2	Component Criteria.....	5
3.3	Determining Useful Life and Remaining Useful Life of Assets	6
3.4	Estimating Replacement Costs of Assets	7
3.5	Maintenance Assumptions	7
4.0	Funding Analysis	7
4.1	Funding Goals	7
4.2	Capital Reserve Fund Income	8
4.3	Projected Expenditures and Reserve Fund Needs.....	8
5.0	Summary and Recommendations	12
5.1	Current Reserve Fund Status.....	12
5.2	Recommended Funding Adjustments	13
6.0	Statement of Limitations.....	14
7.0	Author Credentials	16
8.0	Appendix A – Terms and Definitions.....	17
9.0	Appendix B – Tabulated Inventory.....	20
10.0	Appendix C - Photographic Inventory	21

1.0 Executive Summary

1.1 Overview

Cedars Townhomes HOA was visited by consultants from YKL Consulting on May 12th, 2023. Rich Wells, property manager from Total Property Management, provided current financial documentation and background information as to which assets were to be included as part of the reserve fund. At the time of the site visit, a physical assessment of major community components was completed, and components were quantified, logged, and photographed. Cedar Townhomes HOA is a 183-unit Planned Unit Development (PUD) with sixty-two townhome buildings, fencing, landscaping, and pavilion/playground in Cedar Hills, Utah. The community is located off Canyon Road, about 3900 E 10600 North. The community has two public roads that loop through the neighborhood, Morgan Blvd and Sage Vista Lane. Morgan Blvd dead ends at the southeast point of the community. The 183 units are bounded by Canyon Road to the west, Mt Timpanogos foothills to the east, American Fork Canyon to the north, and single family residential to the south and west. The interiors of the units are maintained by the owners, the exteriors are maintained by the HOA. The HOA also maintains common area landscaping, amenities, private parking, and perimeter fencing. The roads are public from the back of sidewalk to back of sidewalk, and thus maintained by Cedar Hills city. This is a significant advantage and cost savings for Cedars Townhomes. Private streets are typical expenditures seen with communities of this type/size. Being public streets, they have been omitted from this reserve study. The development was built in 2006, this is the year 'new' used in this report.

1.2 Major Expenditure Milestones

The highest future expense for the community is building exterior maintenance. This primarily consists of roofing replacement and exterior painting. Current roofing estimates are about \$1.4M, or \$7650 per unit. Inflated to 2036, the projected replacement year, future costs could reach over \$2M. In addition to roofing, every twelve years building exterior painting should be done. This is projected to occur in 2032 and 2044. Current costs are projected to be about \$750K per occurrence. With two maintenance cycles, that is over \$1.5M in present dollars. These are the most significant

components in the community and drive the financial model and recommendation of the reserve study.

Beginning in 2025 and every 5 years thereafter an allowance of \$15K - \$20K is provided for any needed stucco repair. This allowance will allow spot replacement of cracked, damaged, or peeling stucco as needed. Other less expensive maintenance items and allowances include mailbox replacement, playground equipment, perimeter vinyl fencing, and exterior decking repair/replacements.

1.3 Capital Reserve Account Savings Recommendations

A savings plan is recommended based on a high estimate of component costs. As of April 2023, the reserve fund had a balance of \$1,084,344 with another \$439,455 in a CD, repair account, and saving account. These balances were combined and an initial balance of \$1,523,800 was used for this study. It is recommended that a capital reserve deposit of **\$83/unit per month starting July 2023. This amount increases annually at a rate of 4% until 2036. From 2037-52, the amount remains constant at \$140.** This amount is dependent on a constant savings and inflation rate, and as such, a revised study should be completed every three to six years to confirm conditions have not changed significantly. A lower amount was calculated assuming lower replacement costs and inflation. This is shown in Section 5.0, summary and recommendations. If the reserve fund does not meet the minimum expenditures needed, then a situation will arise where special assessments, deferred maintenance, and lower property values are inevitable.

Table 1.3.1 – Summary of initial conditions, assumptions, and recommendations.

Description	Value
Current Reserve Account Balance	\$1,523,800
Assumed Earned Interest	0.9%
Assumed Rate of Inflation	3.0%
Recommended Monthly Unit Deposit to Reserve Account 2023	\$83
Annual Percent Increase 2024-2036	4%
Recommended Monthly Unit Deposit to Reserve Account 2037-52	\$140

2.0 Purpose of Capital Reserve Study

This capital reserve study has been prepared to provide guidance necessary to adequately prepare the association to meet financial obligations associated with maintenance, repair, and replacement of common area components. Ideally, these financial obligations are met using resources that have been set aside as part of a reserve fund. Following the recommendations of the reserve study will help prevent a financial assessment of unit owners beyond the required association fees. The association board has fiduciary duty to manage and plan for these obligations while also balancing association membership fees and long-term property value. The reserve study helps facilitate this responsibility.

Many states have laws that require HOA's perform reserve studies. Utah Legislative bill SB278, passed March 2010, amended the Condominium Ownership Act (Utah Code 57-8-7.5) and the Community Association Act (Utah Code 57-8a-211) to require the following in the state of Utah:

- Conduct a reserve analysis every six years.

(2) (a) ... cause a reserve analysis to be conducted no less frequently than every six years ...

- Update a reserve analysis every three years.

(2) (b) ... review and, if necessary, update a previously conducted reserve analysis no less frequently than every three years.

The Department of Housing and Urban Development has made reserve studies mandatory for all new condominium conversions applying for FHA insured loans approval. This guideline went into effect September 1, 2011. For condominiums that fail to submit a compliant, recent and accurate reserve study, the development must add a budget reserve line item in its budget equal to 10% of the yearly assessment income. The FHA enforces the 10% budget line item requirement nationally by prohibiting lending in developments that are non-compliant with this requirement.

In addition to the legal requirements, a properly prepared reserve study will benefit the community by aiding property management and boards in making budget and reserve account decisions based on solid analysis and information. It has been found that in-house reserve calculations done by the developer may not accurately reflect any changes that may have taken place during construction.

These have generally been found to be inadequate, and have, at times, resulted in untimely assessments of unit owners.

This capital reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair, or replacement in future years, and may not include regular contributions to a reserve account for the cost of such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require you to pay on demand as a special assessment your share of common expenses for the cost of major maintenance, repair, or replacement of a reserve component.

The Board should be careful about deviating from reserve study recommendations. A reserve study recommends a funding plan that steers the association away from special assessments. If the board decides to fund reserves less than recommended, the risk of special assessments grows.

If a special assessment is needed due to underfunding, a case could be made that the board did not fulfill its fiduciary duty and be held personally liable. Just as importantly, past owners who have sold will not have paid their fair share. Unless there is a compelling reason to deviate, the board should follow the recommendations of this study.

This reserve study was based on an evaluation of the association's repair and replacement obligations of existing components. Determination of costs and timing of repairs/replacements along with determination of available reserve capital form the base line for projected future costs.

These components are found by means of a physical analysis (Section 3.0) and funding analysis (Section 4.0). The physical analysis consists of a site visit to observe the existing condition of the HOA common components. A list of pertinent components was compiled and assessed according to age and condition, as discussed hereafter. Based on this assessment, it is possible to estimate the replacement costs.

According to the association funding goals, and the existing financial store, contributions are recommended such that the reserve account can be fully funded. The account is considered "fully funded" when all financial obligations can be met, without forcing an assessment on unit owners.

3.0 Physical Analysis

3.1 Site Visit

Cedars Townhomes HOA was visited by consultants from YKL Consulting on May 12th, 2023. Rich Wells, property manager from Total Property Management, provided current financial documentation and background information as to which assets were to be included as part of the reserve fund. At the time of the site visit, a physical assessment of major community components was completed, and components were quantified, logged, and photographed. At the time of the site visit, a physical assessment of major community components was completed, and components were quantified, logged, and photographed. Also, photographs depicting current the condition of these items were taken. These photographs are included in Section 10 for reference.

3.2 Component Criteria

The components assessed in this study must meet four general criteria. First, the components must be under the jurisdiction of the association – or common property. Second, the component must meet a minimum cost threshold. Costs required for small, regular maintenance on a daily, weekly, or monthly basis, are assumed to be met with funds set aside for routine property care, the association operating account. Third, the component must have a limited life cycle. This study forecasts expenses over 30 years, thus lifecycles estimated beyond the study period would be excluded. Finally, the component must have predictable life duration. Damage to components associated with settlement, fire, earthquakes, flooding, impact damage, or misuse is not considered predictable nor measurable. Generally, the cost for repair of this type of damage (except flooding) is covered by an association insurance policy. Flood damage is usually the responsibility of an individual homeowner's insurance policy.

Typically, landscape irrigation systems are never replaced as a whole system but rather maintained as parts break. This item should be accounted for within the annual operating account. There are too many external factors beyond design life that contribute to sprinkler damage to accurately determine a life expectancy (i.e., driving/aerating over heads, sand infiltration, freeze damage, etc.).

Sewer and culinary water lines are typically the responsibility of the local government or utility company. In the event they are private, we will incorporate them into the report only if they have aged significantly. Water and sewer lines have a life expectancy ranging 50 to 100 years and typically are beyond the scope of a reserve study report, which only forecasts 30 years. The only way for a PVC sewer line to fail is by traumatic force or unusual excessive wear; PVC sewer lines in general are very durable and if designed properly will have enough slope on the pipe for sewage to reach a velocity which scours the pipe and prevents sediment build-up. A properly designed and built sewer line will last beyond 100 years. Water lines are slightly different in that they are pressurized. They are prone to infrequent breaks; but in general, will last up to 50 years or more. Failures are difficult to predict as the pipe is not observable without excavation, which is beyond the scope of this report. Many failures are due to improper installation, which does not manifest itself for many years.

3.3 Determining Useful Life and Remaining Useful Life of Assets

The projected useful life of a component is determined by manufacturers' recommendations, current age and condition, and our experience with the item. Generally, the manufacturer of a product will provide guidelines for its estimated functional duration. To provide a meaningful estimate of the remaining useful life of an asset, it is crucial to know its age. Construction of Cedars Townhomes occurred in 2006, this the year 'new' used in the reserve fund financial model. At the time of this report exterior paint has been completed in 2020. In addition, six roofs were previously replaced in Phase VI due to poor initial installation. Information provided to YKL combined with construction dates allowed us to estimate existing life spans. During the site visit each component was observed and assessed. This assessment provides us with the ability to modify the manufacturers' useful life recommendation to reflect current conditions. Some components may have experienced overuse, requiring a reduction in the useful life, while others may have been underused, allowing an increase in their life. Thus, the actual age of the item may or may not represent its current condition. It is important to recognize the determination of useful life and remaining useful life is subjective.

Where a component necessitates specialized services beyond the expertise of the preparers of this report, including items that are not easily observable, is encountered, the appropriate service

provider, familiar with such items, was contacted to supplement this study with accurate and representative information.

3.4 Estimating Replacement Costs of Assets

Determining the replacement cost of assets accurately is accomplished in several ways. The current cost associated with repairing or replacing an asset can be found from local vendors, manufacturers, or contractors. Also, comparisons can be made to other common interest developments of similar size and geographic location. Finally, estimates can be made using resources prepared in collaborative effort by construction industry professionals.

Once the current repair or replacement cost of each asset is finalized, it must be adjusted for future costs. Future costs incorporate inflation, account for some market variability, and represent the anticipated cost of the asset at the end of its useful life when it is scheduled for repair or replacement.

3.5 Maintenance Assumptions

Based on the site visit, the preparers of this report have made every effort to account for the current condition, and projected future condition of the subject components. However, we must assume the components will be properly maintained and cared for as per the manufacturer's recommendations.

4.0 Funding Analysis

4.1 Funding Goals

Ultimately, the funding goals must be derived by the board elected by the association board members. It is likely that full funding of the reserve account will require several years. This report documents the current projected reserve status over the next 30 years, as well as the projected reserve status over the next 30 years for minimum and maximum recommended funding options.

4.2 Capital Reserve Fund Income

Income for the reserve fund is a function of monthly association fees paid by unit owners as well as interest paid on the account balance. The funding analysis was performed using both the present association fee rates, and recommended HOA fee rates, with associated after-tax interest income. The post-tax interest rate used for the analysis was 0.9%. Additionally, a rate of 3.0% was used to account for inflation in the high-cost scenario; a rate of 2.5% was used in the low-cost scenario. As of April 2023, the reserve fund had a balance of \$1,084,344 with another \$439,455 in a CD, repair account, and saving account. These balances were combined and an initial balance of \$1,523,800 was used for this study.

4.3 Projected Expenditures and Reserve Fund Needs

Projected expenditures and reserve fund needs are included in Table 4.3.1. Table 4.3.2 tabulates the estimated expenditures per component per life cycle. The total anticipated expenditure per component over the study period has also been included. For components that have multiple recurrences over the study period the component life cycle is multiplied by the anticipated number of recurrences.

Table 4.3.1 – List of components and corresponding data used in the analysis.

Component Name	Useful Life	Year New*	Remaining Life	Low Cost (\$)	High Cost (\$)	Unit	Quantity	Recurrence
Asphalt – 2" Mill & Overlay	30	2006	13	5.00	7.00	sf	2,124	1
Asphalt – Crack & Slurry Seal	5	2018	0	1.00	1.25	sf	2,124	5
Concrete Repair & Replace	3	2021	1	10,000	12,000	ls	1	10
Exterior Stone Repair	5	2020	2	4,000	6,000	ls	1	6
Exterior Paint	12	2020	9	2.50	3.50	sf	241,170	2
Exterior Stucco	5	2020	2	15,000	20,000	ls	1	6
Shingle Roofing Replacement	30	2006	13	4.50	5.50	sf	278,908	1
Gutter & Downspouts	30	2006	13	10.00	12.00	lf	24,797	1
Exterior Light Fixtures	25	2006	8	100.00	125.00	ea	757	1
Decking Replacement	30	2006	13	18.00	27.00	sf	9,360	1
Porch Resurfacing	20	2006	3	8.00	10.00	sf	4,608	10
Vinyl Party Fence	35	2006	18	30.00	35.00	lf	3,904	1
Metal Railing Maintenance	10	2019	6	5.00	7.00	lf	4,576	3
Mailboxes	25	2006	8	1,200	1,500	ea	15	1
Playground Equipment	18	2013	8	20,000	24,000	ls	1	2
Playground Ground Cover	3	2020	0	1.50	2.00	sf	1,335	10
Tree Trimming Allowance	4	2020	1	5,000	10,000	ls	1	8

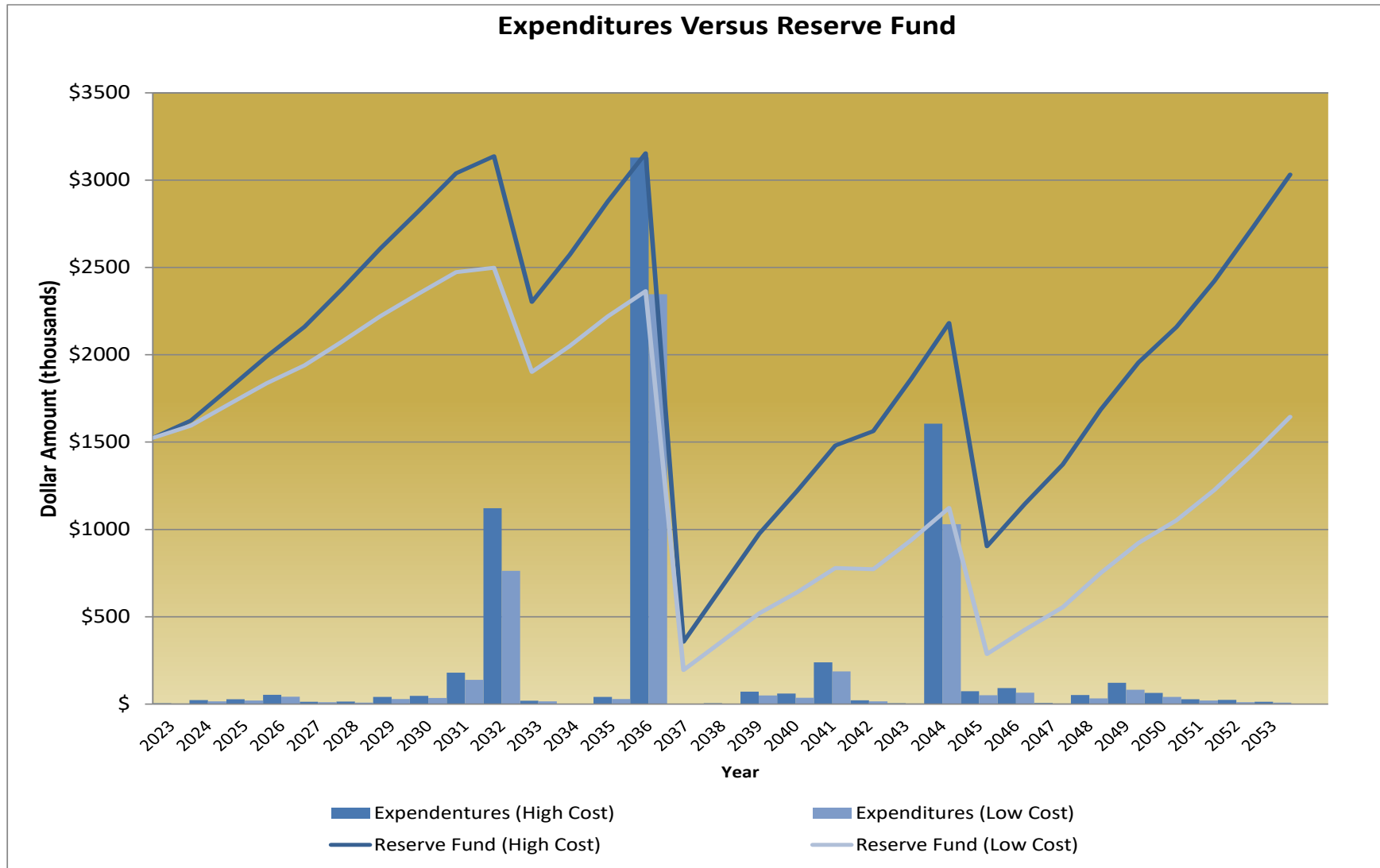
*Year New does not always indicate true year built, but instead projected aging due to existing conditions. This is estimated in the field by evaluating the existing conditions of a component, then predicting the remaining life span of the component. The “year new” date is then back calculated based on typical life spans. Poor maintenance, rigorous use, and improper installation techniques can significantly reduce a component’s life span. Concrete and stucco repair is an allowance for cracks, faulting, and spot repairs. It is not expected that all stucco and concrete will need to be replaced in its entirety.

Table 4.3.2 – Component cost per recurrence in present dollars; the total for the study period in present dollars; includes anticipated expenditure years.

Component Name	Low Cost/Recurrence (\$)	Total Low Cost/Study (\$)	High Cost/Recurrence (\$)	Total High Cost/Study (\$)	Expenditure Years*			
Asphalt – 2” Mill & Overlay	10,620	10,620	14,868	14,868	2036			
Asphalt – Crack & Slurry Seal	2,124	10,620	2,655	13,275	2023	2028	2033	2038
Concrete Repair & Replace	10,000	100,000	12,000	120,000	2024	2027	2030	2033
Exterior Stone Repair	4,000	24,000	6,000	36,000	2025	2030	2035	2040
Exterior Paint	602,925	1,205,850	844,095	1,688,190	2032	2044		
Exterior Stucco	15,000	90,000	20,000	120,000	2025	2030	2035	2040
Shingle Roofing Replacement	1,255,086	1,255,086	1,533,994	1,533,994	2036			
Gutter & Downspouts	247,970	247,970	297,564	297,564	2036			
Exterior Light Fixtures	75,700	75,700	94,625	94,625	2031			
Decking Replacement	168,480	168,480	252,720	252,720	2036			
Porch Resurfacing	36,864	36,864	46,080	46,080	2026	2046		
Vinyl Party Fence	117,120	117,120	136,640	136,640	2041			
Metal Railing Maintenance	22,880	68,640	32,032	96,096	2029	2039	2049	
Mailboxes	18,000	18,000	22,500	22,500	2031			
Playground Equipment	20,000	40,000	24,000	48,000	2031	2049		
Playground Ground Cover	2,003	20,025	2,670	26,700	2023	2026	2029	2032
Tree Trimming Allowance	5,000	40,000	10,000	80,000	2024	2028	2032	2036

*Components with less than 8-year maintenance cycles will have more than four occurrences over the 30-year study period. This has been included in the total component costs.

Figure 4.3.1 - Graphical representation of expenditures over the thirty-year reserve study period. Expenditures vs. reserve fund balance for high and low component costs. The light and dark blue bar columns represent anticipated expenditures based on the lowest cost scenario, and the highest cost scenario. The corresponding light and dark blue lines indicate the reserve fund balance for the low and high funding, according to the allotments recommended in section 5.2



5.0 Summary and Recommendations

5.1 Current Reserve Fund Status

At the time of this report, Cedars Townhomes had a balance of \$1,084,344 with another \$439,455 in a CD, repair account, and savings account. These balances were combined and an initial balance of \$1,523,800 was used for this study. This is reflected in Figure 5.1.1, which demonstrates the current projected reserve fund versus low and high expenditures, assuming a contribution of \$10.92 per unit per month with no annual increases. This is the current HOA contribution amount to the reserve fund (\$2,000/month). It is important to note that in 2036, when roofing replacement is scheduled, the reserve fund will be depleted. Either a special assessment will be required, or the infrastructure will continue to age without needed maintenance. At only \$10.92 per unit per month, the community can float expenses for 13 more years, but then will be in a seven-figure deficit that will require significant increases or special assessments. The community is in a position now to build the reserve account and avoid this scenario.

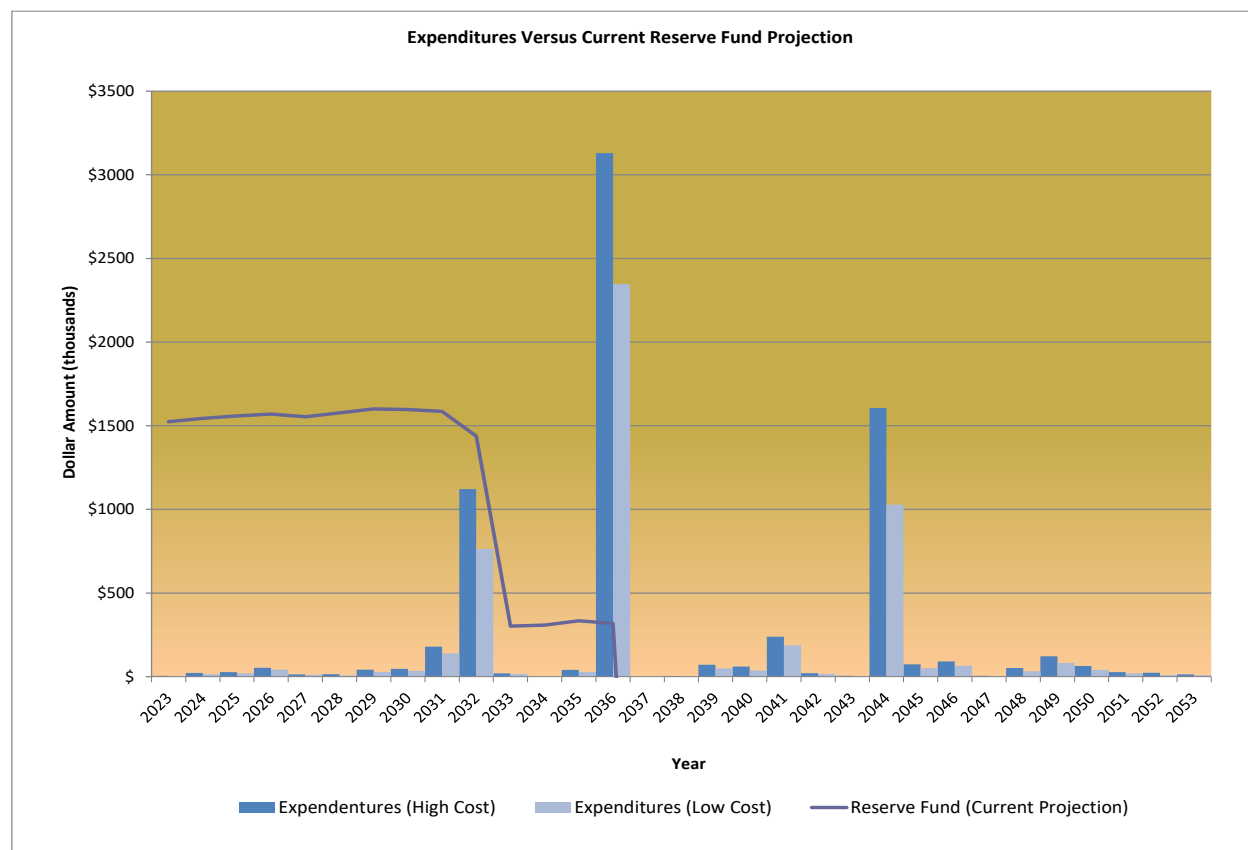


Figure 5.1.1 – Expenditures versus current reserve fund projection.

5.2 Recommended Funding Adjustments

The reserve fund balances shown in Figure 4.3.1 are achieved by adhering to the following recommended monthly unit deposits:

Table 5.2.1 – Recommended monthly unit deposit for low and high component replacement and repair costs

Year	Monthly Unit Deposit (low)	Monthly Unit Deposit (high)	Year	Monthly Unit Deposit (low)	Monthly Unit Deposit (high)
2023	\$55.00	\$83.00	2038	\$74.02	\$140.00
2024	\$56.10	\$86.32	2039	\$75.50	\$140.00
2025	\$57.22	\$89.77	2040	\$77.01	\$140.00
2026	\$58.37	\$93.36	2041	\$78.55	\$140.00
2027	\$59.53	\$97.10	2042	\$80.12	\$140.00
2028	\$60.72	\$100.98	2043	\$81.73	\$140.00
2029	\$61.94	\$105.02	2044	\$83.36	\$140.00
2030	\$63.18	\$109.22	2045	\$85.03	\$140.00
2031	\$64.44	\$113.59	2046	\$86.73	\$140.00
2032	\$65.73	\$118.13	2047	\$88.46	\$140.00
2033	\$67.04	\$122.86	2048	\$90.23	\$140.00
2034	\$68.39	\$127.77	2049	\$92.04	\$140.00
2035	\$69.75	\$132.89	2050	\$93.88	\$140.00
2036	\$71.15	\$138.20	2051	\$95.76	\$140.00
2037	\$72.57	\$140.00	2052	\$97.67	\$140.00

Table 5.2.1 tabulates the recommended monthly unit contributions to the reserve fund. The high-cost recommendation, and the preferred findings of this report, starts at the rate of \$83 per unit monthly for the rest of 2023 and increases annually at a rate of 4% through 2036, then remains constant at \$140 for the duration of the study period. The low-cost recommendation is \$55 per unit monthly with an annual increase of 2% through 2052. It is assumed that this study will be updated at a minimum of every three years to six years, so actual inflation and savings rates can be recalculated, along with a revision of construction costs and repair/replacement dates.

It should be noted that the capital demand on the reserve fund represents the *future dollar* cost. To put this in perspective, a dollar in 1993 is equal to \$2.11 today, or today's dollar equals 47 cents in terms of 1993 currency. Therefore, while the recommended values 20 to 30 years out may seem unreasonably high, it is prudent to keep in mind that the contribution in *present dollar* value is likely close to 47 percent of the tabulated value.

6.0 Statement of Limitations

Every effort has been made to correctly predict component expenses over the analysis period, according to the reliability and accuracy of the information provided by manufactures, vendors, and contractors; however, due to the unique unpredictable nature of the future economic climate, the projected values and recommendations included in this study are strictly estimated representations of the true values. The more distant the year, the lower the probability the values are accurate. The model is sensitive to initial expenses – especially when inflated over 30 years – thus, depending on the economic climate, the recommended required association fees may need to be adjusted up or down.

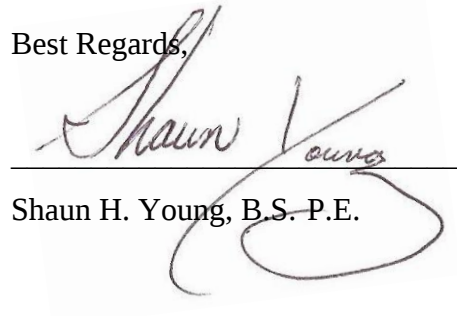
The more often this report is updated, the better the fund/expense balance is met. In order to provide the greatest balance between meeting the expense demands of the association, and reducing the required monthly association fees, we recommend updating this report every other year. If this is not possible, an update of this report should be made *at least* every 6 years. YKL Consulting will be available to provide updates of this report, upon request, for a reduced fee.

YKL Consulting has relied on Cedars Townhomes HOA to disclose the current pertinent financial status of the association. Assumptions regarding interest earned and inflation have been made according to the current financial trends and rates. Component and material quantities were determined by observation during the site visit by YKL associates, as noted in the photographic inventory. Inspection during the site visit was strictly for budgetary purposes. Intrusive or damaging tests were not performed.

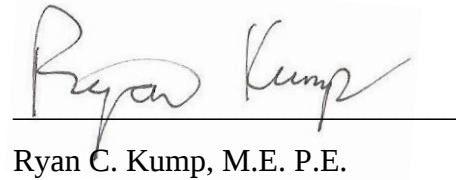
YKL Consulting has no present or prospective interest in the property that is the subject of this reserve study, and has no personal interest or bias with respect to the parties involved. The preparers also have no bias with respect to the property that is the subject in this report or to the parties involved with the contract realizing this assignment.

We appreciate the opportunity to be of service to Cedars Townhomes HOA. Contact us with questions regarding the content of this report, or regarding other services we provide.

Best Regards,



Shaun H. Young, B.S. P.E.



Ryan C. Kump, M.E. P.E.

7.0 Author Credentials

Shaun H. Young BS, P.E.:

Shaun graduated from the University of Utah with a bachelor's degree in Civil Engineering. He works for a local commercial and residential land development firm since graduation. His main areas of expertise are in site design, hydraulic analysis, hydrology, traffic analysis, government entitlements, site development cost estimates, land surveying, and project management. Shaun is the current past-president for the board of directors for his HOA; which consists of 228 residential units.

Mobile: 801-502-9437

Email: shaun@yklconsulting.com

Ryan C. Kump, MS, P.E.:

A 2005 University of Utah master's degree graduate in Civil Engineering, Ryan has worked as a professional engineer for over nine years. His in-depth experience with city codes and regulations gives him insight as to public vs. private property rights and responsibilities. He has managed multi-million dollar construction projects and understands the costs and needs of infrastructure, particularly as it applies to roadways and utilities. Ryan has also served as HOA Board President of The Heights at Quarry Bend community.

Mobile: 801-598-6196

Email: ryan@yklconsulting.com

8.0 Appendix A – Terms and Definitions¹

Component – Also referred to as an “Asset.” Individual line items in the Reserve Study developed or updated in the physical analysis. These elements form the building blocks for the Reserve Study. Components typically are: 1) Association responsibility, 2) with limited useful life expectancies, 3) have predictable remaining life expectancies, 4) above a minimum threshold cost, and 5) required by local codes.

Component Full Funding – When the actual (or projected) cumulative reserve balance for all components is equal to the fully funded balance.

Component Inventory – The task of selecting and quantifying reserve components. This task can be accomplished through on-site visual observations, review of association design and organizational documents, a review of established association precedents, and discussion with appropriate association representatives.

Deficit – An actual (or projected reserve balance), which is less than the fully funded balance.

Effective Age – The difference between useful life and remaining useful life (UL - RUL).

Financial Analysis – The portion of the Reserve Study where current status of the reserves (measured as cash or percent funded) and a recommended reserve contribution rate (reserve funding plan) are derived, and the projected reserve income and expenses over time is presented. The financial analysis is one of the two parts of the Reserve Study.

Fully Funded Balance – An indicator against which the actual (or projected) reserve balance can be compared. The reserve balance that is in direct proportion to the fraction of life “used up” of the current repair or replacement cost of a reserve component. This number is calculated for each component, and then summed together for an association total. $FFB = \text{Current Cost} * \text{Effective Age} / \text{Useful Life}$

¹ Definitions documented by the National Reserve Study Association

Fund Status – The status of the reserve fund as compared to an established benchmark, such as percent funded.

Funding Goals – Independent of calculation methodology utilized, the following represent the basic categories of funding plan goals:

- *Baseline Funding*: Establishing a reserve-funding goal of keeping the reserve balance above zero.
- *Component Full Funding*: Setting a reserve funding goal of attaining and maintaining cumulative reserves at or near 100% funded.
- *Threshold Funding*: Establishing a reserve funding goal of keeping the reserve balance above a specified dollar or percent funded amount.

Funding Plan – An association's plan to provide income to a reserve fund to offset anticipated expenditures from that fund.

Funding Principles –

- Sufficient funds when required
- Stable contributions through the year
- Evenly distributed contributions over the years
- Fiscally responsible

Life and Valuation Estimates – The task of estimating useful life, remaining useful life, and repair or replacement costs for the reserve components.

Percent Funded – The ratio, at a particular point in time (typically the beginning of the fiscal year), of the actual (or projected) reserve balance to the ideal fund balance, expressed as a percentage.

Physical Analysis – The portion of the Reserve Study where the component evaluation, condition assessment, and life and valuation estimate tasks are performed. This represents one of the two parts of the Reserve Study.

Remaining Useful Life (RUL) – Also referred to as “remaining life” (RL). The estimated time, in years, that a reserve component can be expected to continue to serve its intended function. Projects anticipated to occur in the current fiscal year have a “0” remaining useful life.

Replacement Cost – The cost of replacing, repairing, or restoring a reserve component to its original functional condition. The current replacement cost would be the cost to replace, repair, or restore the component during that particular year.

Capital Reserve Balance – Actual or projected funds as of a particular point in time (typically the beginning of the fiscal year) that the association has identified for use to defray the future repair or replacement of those major components that the association is obligated to maintain. Also known as “reserves,” “reserve accounts,” or “cash reserves.” In this report the reserve balance is based upon information provided and is not audited.

Capital Reserve Study – A budget-planning tool, which identifies the current status of the reserve fund and a stable and equitable funding plan to offset the anticipated future major common area expenditures. The Reserve Study consists of two parts: The Physical Analysis and the Financial Analysis.

Special Assessment – An assessment levied on the members of an association in addition to regular assessments. Governing documents or local statutes often regulate special assessments.

Surplus – An actual (or projected) reserve balance that is greater than the fully funded balance.

Useful Life (UL) – Also known as “life expectancy.” The estimated time, in years, that a reserve component can be expected to serve its intended function if properly constructed and maintained in its present application of installation.

9.0 Appendix B – Tabulated Inventory

	Category	Component Number	Component Name
1	Drive Materials	1001	Asphalt - 2" Mill and Overlay
2	Drive Materials	1002	Asphalt - Slurry Seal
3	Drive Materials	1003	Concrete - Repair/Replace
4	Building Exterior	2001	Exterior Stone Repair
5	Building Exterior	2002	Exterior Paint
6	Building Exterior	2003	Stucco Repair
7	Building Exterior	2004	Shingle Roofing Replacement
8	Building Exterior	2005	Gutter & Downspouts
9	Building Exterior	2006	Exterior Light Fixtures
10	Building Exterior	2007	Composite Decking Replacement
11	Building Exterior	2008	Porch Surfacing
12	Building Exterior	2009	Vinyl Party Wall Fencing
13	Building Exterior	2010	Metal Railing Maintenance
14	Building Exterior	2011	Water & Sewer Laterals
15	Common Development Items	3001	Mailboxes
16	Common Development Items	3002	Signs
17	Common Development Items	3003	Chain link Fencing
18	Common Development Items	3004	Streetlights
19	Common Development Items	3005	Playground Equipment
20	Common Development Items	3006	Playground Ground Cover
20	Common Development Items	3007	Outdoor Furniture
21	Common Development Items	3008	Metal Pavilion
22	Common Development Items	3009	Rockery/Block Retaining Wall
23	Common Development Items	3010	Landscaping & Irrigation
24	Common Development Items	3011	Tree Trimming

10.0 Appendix C - Photographic Inventory

Component Name: 2" Asphalt Mill & Overlay
 Component Number: Drive Materials 1001

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: 30 years
 Average Age of Component: 17 years
 Remaining Component Life: 13 years

Component Cost

High Replacement Cost: \$ 14,868
 Low Replacement Cost: \$ 10,620

Quantity Breakdown

Item	Quantity	Unit
Private Parking	2,124	Sq. Ft.

General Description

All roads are publicly owned and maintained.

Private parking stalls are HOA Maintained.

The AASHTO Pavement Design Guide recommends asphalt paving receive immediate rehabilitation when signs of alligator cracking or longitudinal cracks wider than ¼ inch are present. An asphalt overlay is recommended every 15 to 20 years. With low use, the design life of these has been extended to 30 years. Without an overlay, the road base beneath the paving could deteriorate leading to a complete asphalt replacement.

Areas that show signs of sinking can often be attributed to base course failure. These areas should be repaired prior to a new overlay.

Special Notes, Comments, and Considerations

Component Name: Asphalt Slurry Seal
 Component Number: Drive Materials 1002

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: 5 years
 Average Age of Component: 5 years
 Remaining Component Life: 0 years

Component Cost

High Replacement Cost: \$ 2,655
 Low Replacement Cost: \$ 2,124

Quantity Breakdown

Item	Quantity	Unit
Private Parking	2,124	Sq. Ft.

General Description

All roads are publicly owned and maintained.

Private parking stalls are HOA Maintained.

A crack and slurry seal are recommended every 5 years. Slurry seal will help protect the asphalt from degradation by sealing cracks, preventing water seepage and damage. It also rejuvenates the surface and renews the oils, keeping the asphalt from becoming overly brittle.

There are 3 types of slurry seal. For parking lot applications or areas of low vehicular volumes a Type 1 or Type 2 slurry is recommended. A Type 1 slurry utilizes the smallest aggregate size and is good to fill in crack and voids. Type 2 uses a larger aggregate. The larger aggregate could possibly be loosened by vehicles making turns at lower speeds. Type 3 slurry should not be used in this development as it is intended for roadways with high volumes moving in a straight line.

Special Notes, Comments, and Considerations

Component Name: Concrete Repair/Replace
 Component Number: Drive Materials 1003

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Reoccurring Allowance: 3 years
 Beginning Year 2024

Component Cost

High Replacement Cost: \$ 12,000
 Low Replacement Cost: \$ 10,000

Quantity Breakdown

Item	Quantity	Unit
Concrete Repair	1	Lump Sum

General Description

The American Public Works Association (Utah Chapter) recommends concrete panels to be repaired and or replaced when there are 3 or more cracks that extend the full depth of the slab or if there is spalling that covers more than 25% of the panel. Protruding edges should be ground down to prevent further damage and to prevent any safety hazards.

Special Notes, Comments, and Considerations

Component Name: Exterior Stone Repair
 Component Number: Building Exterior 2001

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Reoccurring Allowance: 5 years
 Beginning Year 2025

Component Cost

High Replacement Cost: \$ 6,000
 Low Replacement Cost: \$ 4,000

Quantity Breakdown

Item	Quantity	Unit
Stone Repair	1	Lump Sum

General Description

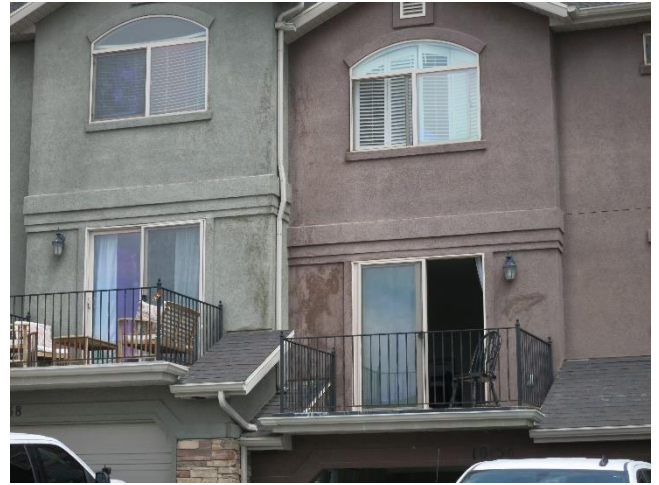
Brick, stone, and concrete are durable building materials that can last a very long time. Because of the long lifespan of this component, it is plausible that it will last the lifetime of the building.

The HOA noted that some of the stone façade was installed improperly and have required repairs. An allowance has been provided to repair damaged masonry.

Special Notes, Comments, and Considerations

Component Name: Exterior Paint
 Component Number: Building Exterior 2002

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: 12 years
 Average Age of Component: 3 years
 Remaining Component Life: 9 years

Quantity Breakdown

Item	Quantity	Unit
Exterior Paint	241,170	Sq. Ft.

Component Cost

High Replacement Cost: \$ 844,095
 Low Replacement Cost: \$ 602,925

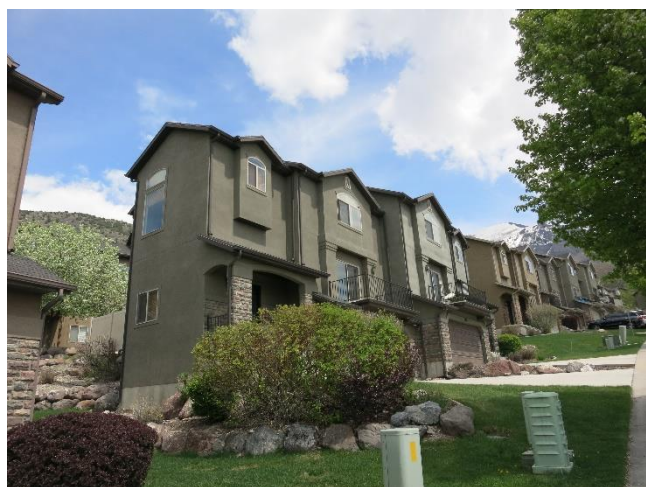
General Description

The HOA noted that the stucco exterior in the community has been painted. The units were painted in 2020.

Special Notes, Comments, and Considerations

Component Name: Exterior Stucco
 Component Number: Building Exterior 2003

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Reoccurring Repair Allowance: 5 years
 Beginning Year: 2025

Component Cost

High Replacement Cost: \$ 20,000
 Low Replacement Cost: \$ 15,000

Quantity Breakdown

Item	Quantity	Unit
Stucco Repair	1	Lump Sum

General Description

It is assumed that hard stucco was used in this development rather than EIFS. Many stucco manufacturers do not recommend painting over hard stucco. Stucco is a breathable material and is water resistant but not water proof. The membrane beneath the stucco is what provides the water proofing. Painting over stucco prevents the material from breathing and can trap moisture which may lead to mold. It is recommended to repair areas that may cause further damage to the home or becomes too unsightly.

Due to the long lifespan of stucco an allowance has been provided to repair damaged panels. At the request of the association an estimate can be provided in this report for a stucco fog coat. A fog coat essentially provided a new thin layer of stucco over the existing surface.

Special Notes, Comments, and Considerations

Component Name: Shingle Roofing Replacement
 Component Number: Building Exterior 2004

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: 30 years
 Average Age of Component: 17 years
 Remaining Component Life: 13 years

Quantity Breakdown

Item	Quantity	Unit
Asphalt Shingles	278,908	Sq. Ft.

Component Cost

High Replacement Cost: \$ 1,533,944
 Low Replacement Cost: \$ 1,255,086

General Description

Special Notes, Comments, and Considerations

Component Name: Gutter & Downspouts
 Component Number: Building Exterior 2005

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: 30 years
 Average Age of Component: 17 years
 Remaining Component Life: 13 years

Quantity Breakdown

Item	Quantity	Unit
Gutters & Downspouts	24,797	LF

Component Cost

High Replacement Cost: \$ 297,564
 Low Replacement Cost: \$ 247,970

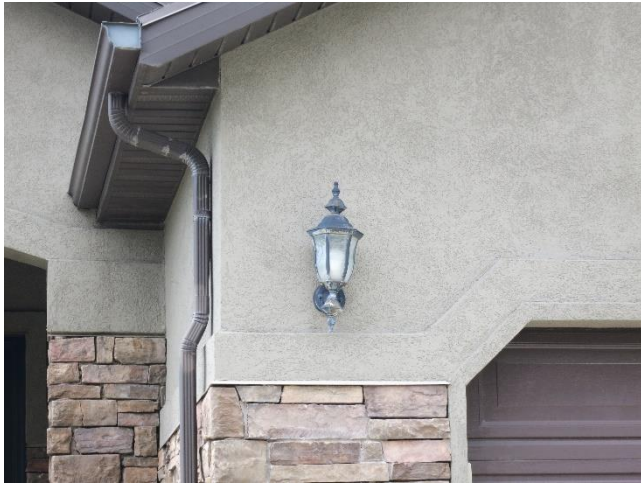
General Description

Aluminum gutters typically fail at the seams and joints. Over time leaking can occur. The typical design life of aluminum gutters is 20 to 30 years. This report will assume gutter replacement at the time of roofing replacement.

Special Notes, Comments, and Considerations

Component Name: Exterior Light Fixtures
 Component Number: Building Exterior 2006

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: 25 years
 Average Age of Component: 17 years
 Remaining Component Life: 8 years

Component Cost

High Replacement Cost: \$ 94,625
 Low Replacement Cost: \$ 75,700

Quantity Breakdown

Item	Quantity	Unit
Exterior Light Fixtures	757	Each

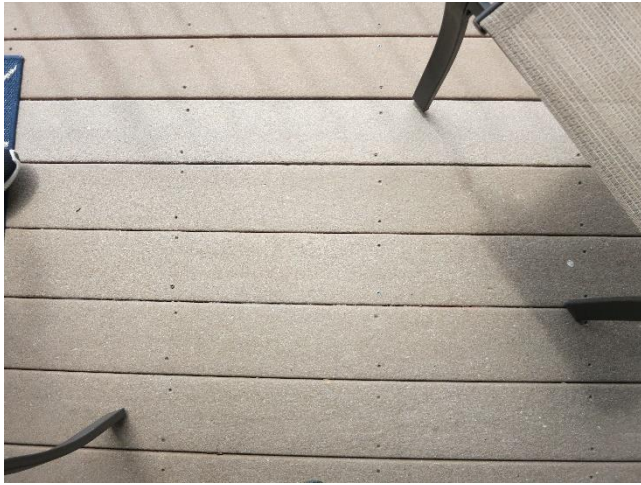
General Description

Exterior light fixtures can oxidize over time and become unsightly. This component includes the exterior light fixtures but not the recessed lighting.

Special Notes, Comments, and Considerations

Component Name: Decking Replacement
 Component Number: Building Exterior 2007

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: 30 years
 Average Age of Component: 17 years
 Remaining Component Life: 13 years

Quantity Breakdown

Item	Quantity	Unit
Composite Decking	9,360	Sq. Ft.

Component Cost

High Replacement Cost: \$ 252,720
 Low Replacement Cost: \$168,480

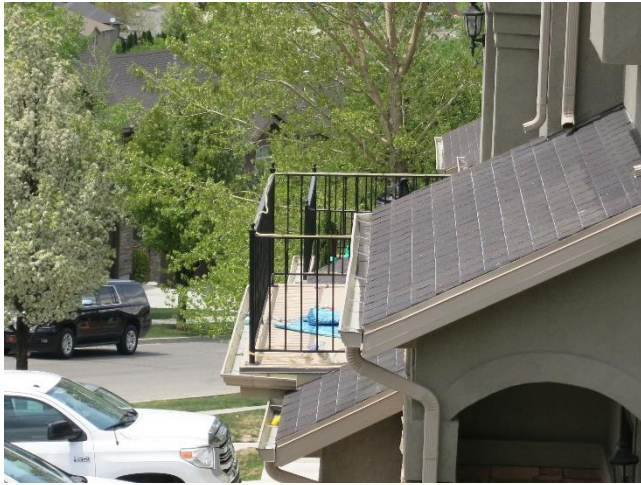
General Description

The decks in the development are constructed of composite decking material.

Special Notes, Comments, and Considerations

Component Name: Porch Surfacing
 Component Number: Building Exterior 2008

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: 20 years
 Average Age of Component: 17 years
 Remaining Component Life: 3 years

Quantity Breakdown

Item	Quantity	Unit
Porch Resurfacing	4,608	Sq. Ft.

Component Cost

High Replacement Cost: \$ 46,080
 Low Replacement Cost: \$ 36,864

General Description

Approximately 53 units have front porches. The flooring material of the porches are covered with waterproof surfacing.

Special Notes, Comments, and Considerations

Component Name: Vinyl Party Fencing
 Component Number: Building Exterior 2009

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: 35 years
 Average Age of Component: 17 years
 Remaining Component Life: 18 years

Quantity Breakdown

Item	Quantity	Unit
Vinyl Privacy Fencing	3,904	LF

Component Cost

High Replacement Cost: \$ 136,640
 Low Replacement Cost: \$ 117,120

General Description

Units are partitioned in the backyard with vinyl privacy fencing. Some owners have elected to close off their backyards with vinyl fencing. The additional fencing beyond the party wall is the responsibility of the individual homeowner.

Special Notes, Comments, and Considerations

Component Name: Metal Railing Maintenance
 Component Number: Building Exterior 2010

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: 10 years
 Average Age of Component: 4 years
 Remaining Component Life: 6 years

Component Cost

High Replacement Cost: \$ 32,032
 Low Replacement Cost: \$ 22,880

Quantity Breakdown

Item	Quantity	Unit
Metal Railing	4,576	LF

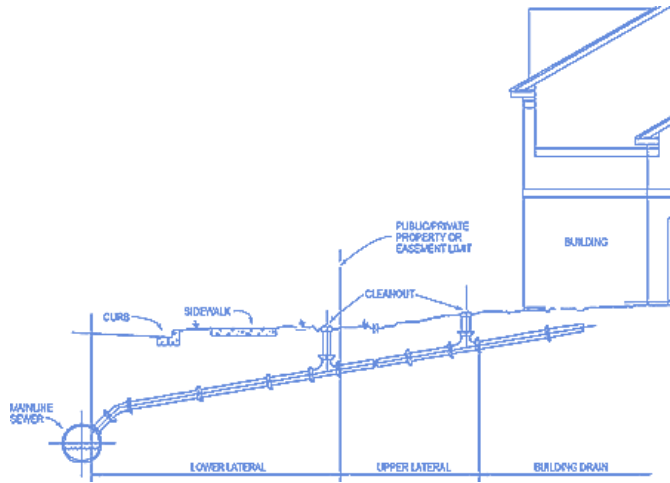
General Description

Metal railings are found throughout the community. The metal railing is a durable material with a useful life extending beyond the range of this report; however, the railing will require routing painting to prevent rusting and premature deterioration.

Special Notes, Comments, and Considerations

Component Name: Sewer & Water Lines
 Component Number: Building Exterior 2011

Date of Photograph: N/A
 Photograph By: _____



Component Duration

Component Life Expectancy: N/A years
 Age of Component: _____ years
 Remaining Component Life: _____ years

Component Cost

High Repair Cost: \$ N/A
 Low Repair Cost: \$

Quantity Breakdown

Name	Quantity	Unit
------	----------	------

General Description

Special Notes, Comments, and Considerations

The above pictures are for representation only and are not from the actual development.

Component Name: Mailboxes
 Component Number: Common Development 3001

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: 25 years
 Age of Component: 17 years
 Remaining Component Life: 8 years

Quantity Breakdown

Type	Quantity	Units
Mailbox Pedestal Cluster	15	Each

Component Cost

High Replacement Cost: \$ 22,500
 Low Replacement Cost: \$ 18,000

General Description

The community uses pedestal cluster mailboxes. The post office should be notified when replacement is needed to verify if there are any shared costs. This report assumes that the post office will not maintain the mailbox clusters.

Special Notes, Comments, and Considerations

Component Name: Sign Replacement
Component Number: Common Development 3002

Date of Photograph: Friday, May 12, 2023
Photograph By: Shaun Young



Component Duration

Sign Allowance N/A years
Beginning Year N/A

Component Cost

High Repair Cost: \$ N/A
Low Repair Cost: \$ N/A

Quantity Breakdown

Name	Quantity	Unit
------	----------	------

General Description

Due to the low quantity of signs and relatively low replacement cost, it is recommended that sign replacement be expensed from the annual maintenance budget.

Special Notes, Comments, and Considerations

Component Name: Chain Link Fencing
 Component Number: Common Development 3003

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: ∞ years
 Age of Component: years
 Remaining Component Life: years

Quantity Breakdown

Name	Quantity	Unit
Concrete Fencing		LF

Component Cost

High Repair Cost: \$ N/A
 Low Repair Cost: \$ N/A

General Description

Chain link fencing is a durable material having a useful life extending beyond the range of this report.

Special Notes, Comments, and Considerations

Component Name: Streetlights
 Component Number: Common Development 3004

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: N/A years
 Average Age of Component: N/A years
 Remaining Component Life: N/A years

Quantity Breakdown

Item	Quantity	Unit
Streetlights	12	Each

Component Cost

High Replacement Cost: \$ N/A
 Low Replacement Cost: \$ N/A

General Description

The HOA noted that the streetlights are owned and maintained by the city.

Special Notes, Comments, and Considerations

Component Name: Playground Equipment
 Component Number: Common Development 3005

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: 18 years
 Average Age of Component: 10 years
 Remaining Component Life: 8 years

Quantity Breakdown

Name	Quantity	Unit
Playground Structure	1	Each
Basketball Hoop	1	Each

Component Cost

High Repair Cost: \$ 24,000
 Low Repair Cost: \$ 20,000

General Description

A playground structure and basketball hoop were observed in the common area.

Special Notes, Comments, and Considerations

Component Name: Playground Ground Cover
 Component Number: Common Development 3006

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: 3 years
 Average Age of Component: 3 years
 Remaining Component Life: 0 years

Quantity Breakdown

Name	Quantity	Unit
Ground Cover	1,335	Sq. Ft.

Component Cost

High Repair Cost: \$ 2,670
 Low Repair Cost: \$ 2,003

General Description

Playground covering consisted of wood mulch.
 Playground covering should be no less than 6 inches deep.

Special Notes, Comments, and Considerations

Component Name: Outdoor Furniture
 Component Number: Common Development 3007

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: N/A years
 Average Age of Component: years
 Remaining Component Life: years

Quantity Breakdown

Name	Quantity	Unit
Picnic Table	8	Each
Bench	2	

Component Cost

High Repair Cost: \$ N/A
 Low Repair Cost: \$ N/A

General Description

The commercial grade metal benches have a useful life extending beyond the range of this report. The folding picnic tables are recommended to be replaced from the operating account, due to the low expense. (\$300 ea)

Special Notes, Comments, and Considerations

Component Name: Metal Pavilion
 Component Number: Common Development 3008

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: ∞ years
 Average Age of Component: years
 Remaining Component Life: years

Quantity Breakdown

Name	Quantity	Unit
		Each

Component Cost

High Repair Cost: \$ N/A
 Low Repair Cost: \$ N/A

General Description

The steel pavilion has a useful life exceeding the range of this report.

Special Notes, Comments, and Considerations

Component Name: Rockery Retaining Wall
 Component Number: Common Development 3009

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: ∞ years
 Average Age of Component: years
 Remaining Component Life: years

Quantity Breakdown

Name	Quantity	Unit
		Each

Component Cost

High Repair Cost: \$ N/A
 Low Repair Cost: \$ N/A

General Description

Rockery retaining walls were observed throughout the community and have a useful life extending beyond the range of this report.

Special Notes, Comments, and Considerations

Component Name: Landscape & Irrigation
 Component Number: Common Development 3010

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: N/A years
 Age of Component: _____ years
 Remaining Component Life: _____ years

Quantity Breakdown

Name	Quantity	Unit
------	----------	------

Component Cost

High Replacement Cost: \$ N/A
 Low Replacement Cost: \$

General Description

Landscaping and irrigation are typically not included in this report. It's very uncommon to have to replace all the landscaping or irrigation system at one time. A portion of the operating account should be budgeted for sprinkler repairs and isolated landscaping replacement.

Special Notes, Comments, and Considerations

Component Name: Tree Trimming
 Component Number: Common Development 3011

Date of Photograph: Friday, May 12, 2023
 Photograph By: Shaun Young



Component Duration

Tree Trimming Allowance 4 years
 Beginning Year 2024

Component Cost

High Replacement Cost: \$ 10,000
 Low Replacement Cost: \$ 5,000

Quantity Breakdown

Name	Quantity	Unit
------	----------	------

General Description

An allowance is provided for community wide large scale tree trimming. This sometimes is included in the annual operating budget, but this reserve account allowance allows the community to bring in larger crews on a four-year cycle for major tree trimming needs.

Special Notes, Comments, and Considerations
