

ENGINEERING & CONSULTING

888-688-4560 www.superiorreserve.com

Full Reserve Study

Westerley Homeowners Association - Townhomes



Sterling, Virginia

November 2, 2017

Reference Number: 170176

Westerley Homeowners Association - Townhomes

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Limiting Conditions	1.701										
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Reserve Component List	Data	Year (near	Λ ~ ~	Life	Useful Life	Cost without	%	C Implicated	of	Cost per	Flouibility
	Section	term in red)	Age	(years)	(years)	Inflation	Included	\$ Included	Phases	Phase	Flexibility
Concrete Curbs and Gutters (10% with repaving)	6.121	2022	original	25	5	\$305,000	10%	\$30,500	2	\$15,250	deferrable
Concrete Aprons (3% every 5 years)	6.141	2023	original	5	6	\$144,000	3%	\$4,320	1	\$4,320	deferrable
Concrete Sidewalks and Steps (3% every 5 years)	6.181	2018	original	5	1	\$175,000	3%	\$5,250	1	\$5,250	deferrable
Mail Cluster Box Stations	6.621	2022	original	25	5	\$32,000	100%	\$32,000	1	\$32,000	deferrable
Pavement - Crack Repair, Patch and Stripe (1)	6.641	2018	original	4	1	\$11,500	100%	\$11,500	1	\$11,500	firm
Pavement Mill and Overlay - Streets and Parking Areas (1)	6.661	2022	original	25	5	\$181,000	100%	\$181,000	2	\$90,500	deferrable
Pavement Replacement - Streets and Parking Areas (1)	6.663	2047	2022	25	30	\$497,000	100%	\$497,000	2	\$248,500	deferrable
Retaining Walls - Wood (1)	6.901	2027	original	30	10	\$6,000	100%	\$6,000	2	\$3,000	deferrable



Westerley Homeowners Association - Townhomes

Property and Service Summary

Location: Sterling, Virginia

Property type: private streets serving townhomes

Number of units: 190

1997 through 1999 Years of construction:

Date of inspection: November 2, 2017

Type of service: reserve study

Level of service: Full Study

Length of analysis: 30 years

asphalt pavement at streets and parking areas, Features:

concrete curbs, gutters, aprons and sidewalks

Upcoming projects: partial sidewalk replacements, pavement

maintenance, repaving



townhomes on south side of Augusta Drive



townhomes on north side of Augusta Drive



concrete aprons, sidewalks, curbs and gutters



mailbox stations





Property Engineering Review

During our inspection of your property, we identify the following repairs and improvements that the property should consider:

Actionable recommendations - near term actions on these items will minimize future costs and maintain the comfort and security (See "Pages with Engineering Data" for more information where applicable):

When replacement comes due, the property should replace wood retaining walls with masonry. The labor cost is nearly the same and although the material cost is more, the useful life of masonry blocks is much longer than wood timbers.

Green ideas - Opportunities for energy efficiency and best practices for sustainability. Acting on these recommendations will provide significant cost savings (See "Pages with Engineering Data" for more information where applicable):

The property has not seal coated the asphalt pavement and we agree with this practice. It is our professional opinion that seal coating asphalt pavement does not extend the useful life of the pavement. Seal coats do not add structural strength to the pavement. Seal coating is also a source of environmental contamination.

Consider the mix and mill process for repaving. This process reuses the milled pavement in the overlay thereby minimizing waste.

Engineering solutions - reference this information for proper scope of work and best outcome on upcoming projects (See "Pages with Engineering Data" for more information where applicable):

The property has conducted appropriate prior repairs and maintenance to the pavement based on our inspection. However, additional repairs are needed. Continued maintenance including crack repairing all joints and patching potholes in the pavement will prevent water infiltration. This will minimize deterioration of the pavement and underlying base, and maximize the life of the pavement.

Mill and overlay the pavement with the onset of deterioration and prior to widespread deterioration to preserve the base and defer the need for the more costly total replacement method of repaving.

The scope of this reserve study is 30 years. Asphalt pavement lasts approximately 25 years. After near term milling and overlaying of the asphalt pavement, the property should plan for total replacement of the pavement approximately 25 years later. This process of repaving includes removing the existing pavement, regrading and augmenting the base, and installing 4 inches of new pavement in a minimum of two lifts to ensure proper compaction.





Implementation of these repairs and improvements could increase the useful life of the components, minimize operating costs and provide guidance at the time of component replacement.



Reserve Study Overview

This reserve study is a *physical and financial analysis* of your property that determines what components of your property will eventually require either major repairs or restoration, or complete replacement. Large, one-time contributions (special assessments) for these projects can be eliminated with development of a *reserve* through relatively smaller annual contributions. The physical analysis determines the existing quantities, conditions, useful lives and costs of the components. The financial analysis determines the existing financial situation of your property and the reserves necessary to offset the future expenses.

Reserve Component

Components in this reserve study meet the following requirements:

- responsibility of the property
- limited useful life expectancy
- predictable remaining useful life expectancy
- above a minimum threshold cost

Components that do not fulfill the above requirements are not included in this study.

30 Year Analysis

The analysis for this reserve study encompasses the next 30 years. The components of the property age each year. Those who enjoy the use of each component are financially responsible for what they enjoyed. This length of an analysis is necessary to analyze the aging of nearly all the major components of the property. The expectation is not that the current Residents, Board of Directors and/or Management will be present at the property in 30 years. Rather, the future analysis aids in determining the most accurate *current* contribution for the aging components.

Funding Method

The funding method of this reserve study utilizes the *cash flow method*. With the cash flow method, contributions to the reserve fund are designed to offset variable annual expenditures. We experiment with different contribution scenarios until an ideal scenario is discovered to offset reserve expenditures. All expenses and contributions are *pooled* together. Our experience indicates that the cash flow method typically results in lower overall contributions than the *component method*, which typically segregates funds.

Funding Goal

The funding goal of this reserve study is to maintain a reserve balance above a minimum *threshold* during the years of major expenditures. We assume a contingency reserve balance of not less than



approximately ten percent (10%) of the expenditures in the **threshold funding year** (The year the reserve balance is at its lowest point. See Funding Plan Page 1.401 for the identification of this year). The property can determine if they prefer a higher or lower contingency.

The ideal situation is when the threshold funding year is in the last year of the analysis. This provides the maximum amount of time that the property can save up for major expenses. A critical situation is when the threshold funding year is in the first few years of the analysis. This situation requires major initial reserve contributions to offset near term expenditures.

Funding

This reserve study assumes an ideal situation where all future costs are offset by annual contributions to the reserve fund. We understand that this is not always possible. Our experience suggests that major projects are funded through multiple means such as partially through the reserve fund and partial through either additional assessments or bank loans. The specific funding of the projects is determined by the property at the time of the event (this is not something we can forecast). The goal of the property should be to follow the recommended funding plan outlined in this reserve study. If the recommended reserve contributions are not feasible as determined by the Board of Director's judgment, this reserve study should then be used, at a minimum, to justify the need for an *increase* over the *current* reserve fund contribution.

Flexibility

The time of replacement for each component involves a varying degree of deduction. To help understand the criticality of each replacement time, we provide the following replacement flexibility guide:

firm - Replacement time has little, if any, flexibility. Deferring the replacement time would have an adverse effect on the property.

deferrable - Replacement time has limited flexibility. Continually deferring the replacement time would eventually have an adverse effect on the property and raise aesthetic concerns.

discretionary - Replacement time has flexibility. Continually deferring the replacement time would either raise aesthetic concerns or the component does not affect the functionality of the property.

Reserve Study Requirements

Property Declarations occasionally define reserve study requirements. The state legislature may also define reserve study requirements. The following is a link to state reserve study requirements (the property should be aware more recent or pending legislation may exist since the date of this report):

http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+55-514.1



It is our intention that this reserve study complies with these requirements. The property should consult with their attorney on discrepancies between reserve study requirements. Contact us for any revision necessary to the reserve study to fulfill these requirements.

Cost estimates

We obtain the cost estimates for replacements from the following sources:

- published sources (RS Means based on standard union labor rate)
- historical costs
- proprietary information

Our estimates are not guarantees of actual replacement costs. We base our estimates on our calculation of expected market rate for your specific location and specific situation. Multiple contractor bids will result in multiple cost estimates. *Multiple* contractor estimates will inevitably vary from our *single* estimate. If the property receives an estimate that is higher than the estimate in this reserve study, the property should use this study as a tool to negotiate a lower cost. If the property receives an estimate that is lower than the estimate in this reserve study - congratulations! You have received an estimate that is below the expected market rate. The property should verify the scope of work in the contractor's estimate is similar to what is noted on the Engineering Data page (Engineering Data pages are all the data pages subsequent to "Limiting Conditions", Page 1.701).

Long Lived Components

There exists components at the property that will not require replacement during the 30 year analysis. Although these long lived components will eventually require replacement, they do not fall within the scope of the analysis. Periodic updates of the study will eventually include their replacement. Frequent updates of the study will ensure the property has up to 30 years to plan for their eventual replacement. The following is a list of *common* long lived components for the property:

subsurface pipes

Operating Budget

The operating budget provides funds necessary for the daily operation of the property. In general, the operating budget includes expenses that repeat from year to year, such as administrative expenses and cleaning. All the property components require maintenance. This reserve study does not include maintenance costs that would traditionally fall under an operating budget. We assume the property will fund normal annual maintenance through the operating budget. We also assume that the property will fund replacement of components below an estimated minimum threshold cost of

\$5,000



through the operating budget. The following is a list of components that we assume the property will fund through the operating budget:

painting of curbs

The items in the list above have a minimal (if any) impact on our recommended reserve fund contribution. If the property chooses to fund these expenses through reserves, updates of this reserve study would account for these expenses.

Responsibility of Others

We were informed that there are components within the property that are the responsibility of others. The following components are neither the responsibility of the property nor the homeowners:

- individual homes and lots
- light poles and fixtures
- pool and pool house
- ponds

Additional Assessments

The objective of properly planned operating budgets and reserve contributions is to avoid additional assessments. However, additional assessments are necessary for unplanned costs such as code change requirements, unobservable conditions, property improvements, etc. We *do not* recommend the property fund these expenses through reserves. The property should consult with an attorney to determine if the property Bylaws have a provision for these types of expenses.

Definitions and Supporting Information

Community Associations Institute (CAI) and the Association of Professional Reserve Analysts (APRA) are national organizations that provide requirements for reserve studies. The property should refer to these organizations for reserve study definitions and supporting information. The following are links to these organizations:

http://www.caionline.org

http://www.apra-usa.com/

Reserve Fund Status

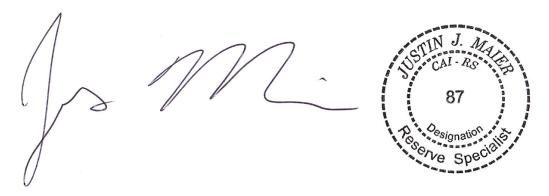
The current reserve contributions are slightly excessive resulting in overpayment of current homeowners. Therefore, the property can decrease the amount of contributions. See Funding Plan Page 1.401 for our recommended reserve funding plan.



Updates

The reserve study is a static snap shot in time based on the date of the inspection. However, costs, inflation rates, interest rates and weather conditions are dynamic in that they are always changing. This necessitates periodic *updates* of the reserve study. An update is less costly than the original reserve study since there is less labor involved in gathering information on your property. We suggest updating the reserve study every three to six years. Factors that can determine when an update should occur are an upcoming major project, completion of a major project, major change to the property, known change in the interest and/or inflation rates compared to the last reserve study, etc. Please contact us for a reserve study update proposal when necessary.

Sincerely,



Justin J. Maier, RS
Partner
Superior Reserve Engineering & Consulting justin@superiorreserve.com
888-688-4560
Report submitted on: November 16, 2017



Recommended Reserve Funding Plan Westerley Homeowners Association - Townhomes

	Inflated	Recommended		Average \$ per	\$ increase per	
	expenditures	reserve	Ending reserve	home per month	month from	% increase from
Year	(3.3% annual)	contributions	balance	(190 homes)	previous year	previous year
2017*	\$0	\$35,066	\$341,126	\$15.38	-	-
2018*	(\$17,303)	\$33,300	\$361,313	\$14.61	-\$0.77	-5.0%
2019	\$0	\$28,500	\$394,320	\$12.50	-\$2.11	-14.4%
2020	\$0	\$29,400	\$428,628	\$12.89	\$0.39	3.2%
2021	\$0	\$30,400	\$464,354	\$13.33	\$0.44	3.4%
2022	(\$162,029)	\$31,400	\$338,512	\$13.77	\$0.44	3.3%
**2023	(\$140,122)	\$32,400	<u>\$234,206</u>	\$14.21	\$0.44	3.2%
2024	\$0	\$33,500	\$270,717	\$14.69	\$0.48	3.4%
2025	\$0	\$34,600	\$308,773	\$15.18	\$0.48	3.3%
2026	(\$15,403)	\$35,700	\$332,897	\$15.66	\$0.48	3.2%
2027	(\$4,151)	\$36,900	\$369,838	\$16.18	\$0.53	3.4%
2028	(\$17,965)	\$38,100	\$394,531	\$16.71	\$0.53	3.3%
2029	\$0	\$39,400	\$438,902	\$17.28	\$0.57	3.4%
2030	(\$17,539)	\$40,700	\$467,469	\$17.85	\$0.57	3.3%
2031	\$0	\$42,000	\$515,331	\$18.42	\$0.57	3.2%
2032	\$0	\$43,400	\$565,175	\$19.04	\$0.61	3.3%
2033	(\$16,089)	\$44,800	\$600,841	\$19.65	\$0.61	3.2%
2034	(\$19,971)	\$46,300	\$634,538	\$20.31	\$0.66	3.3%
2035	\$0	\$47,800	\$690,239	\$20.96	\$0.66	3.2%
2036	\$0	\$49,400	\$748,218	\$21.67	\$0.70	3.3%
2037	\$0	\$51,000	\$808,503	\$22.37	\$0.70	3.2%
2038	(\$41,665)	\$52,700	\$829,306	\$23.11	\$0.75	3.3%
2039	\$0	\$54,400	\$893,984	\$23.86	\$0.75	3.2%
2040	\$0	\$56,200	\$961,249	\$24.65	\$0.79	3.3%
2041	\$0	\$58,100	\$1,031,233	\$25.48	\$0.83	3.4%
2042	(\$25,894)	\$60,000	\$1,077,917	\$26.32	\$0.83	3.3%
2043	(\$22,260)	\$62,000	\$1,130,831	\$27.19	\$0.88	3.3%
2044	\$0	\$64,000	\$1,208,785	\$28.07	\$0.88	3.2%
2045	\$0	\$66,100	\$1,289,787	\$28.99	\$0.92	3.3%
2046	\$0	\$68,300	\$1,373,974	\$29.96	\$0.96	3.3%
2047***	(\$783,311)	\$70,600	\$673,473	\$30.96	\$1.01	3.4%

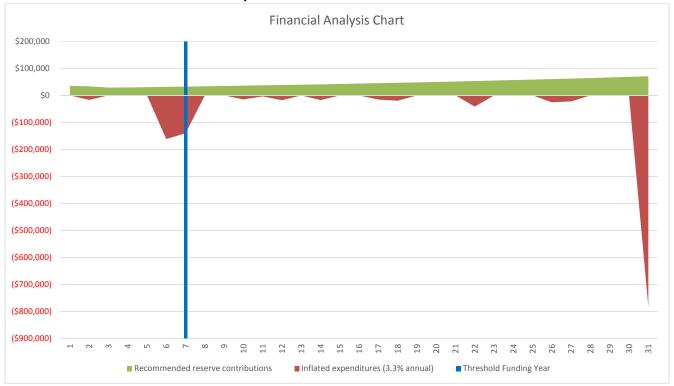
^{*} reserve contributions are budgeted

2047***Ending reserve balance considers the need for the continued phased replacement of the pavement after 2047.

^{**2023} is the THRESHOLD FUNDING YEAR (the year the reserve balance is at its lowest point)



Westerley Homeowners Association - Townhomes



30 Year Expenditure Summary



							threshold	
Westerley Homeowners Association - Townhomes							funding year	
Fiscal year	2017	2018	2019	2020	2021	2022	2023	2024
Construction inflation rate	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
Compounded construction inflation	100.0%	103.3%	106.7%	110.2%	113.9%	117.6%	121.5%	125.5%
Beginning balance (September 30, 2017)	\$332,185	\$341,126	\$361,313	\$394,320	\$428,628	\$464,354	\$338,512	\$234,206
Inflated expenditures (3.3% annual)	\$0	(\$17,303)	\$0	\$0	\$0	(\$162,029)	(\$140,122)	\$0
Recommended reserve contributions (remaining 2017 contribution)	\$8,767	\$33,300	\$28,500	\$29,400	\$30,400	\$31,400	\$32,400	\$33,500
Earned interest (1.2% PROJECTED yield rate)	\$175	\$4,189	\$4,507	\$4,908	\$5,326	\$4,788	\$3,416	\$3,011
Ending reserve balance	\$341,126	\$361,313	\$394,320	\$428,628	\$464,354	\$338,512	\$234,206	\$270,717
Reserve Component List								
Concrete Curbs and Gutters (10% with repaving)						17,938	18,530	
Concrete Aprons (3% every 5 years)							5,249	
Concrete Sidewalks and Steps (3% every 5 years)		5,423					6,379	
Mail Cluster Box Stations						37,640		
Pavement - Crack Repair, Patch and Stripe (1)		11,880						
Pavement Mill and Overlay - Streets and Parking Areas (1)						106,451	109,964	
Pavement Replacement - Streets and Parking Areas (1)								
Retaining Walls - Wood (1)								

30 Year Expenditure Summary



Fiscal year	2025	2026	2027	2028	2029	2030	2031	2032
Construction inflation rate	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
Compounded construction inflation	129.7%	133.9%	138.4%	142.9%	147.6%	152.5%	157.5%	162.7%
Beginning balance (September 30, 2017)	\$270,717	\$308,773	\$332,897	\$369,838	\$394,531	\$438,902	\$467,469	\$515,331
Inflated expenditures (3.3% annual)	\$0	(\$15,403)	(\$4,151)	(\$17,965)	\$0	(\$17,539)	\$0	\$0
Inflated expenditures (3.3% annual) Recommended reserve contributions (remaining 2017 contribution)	\$0 \$34,600	(\$15,403) \$35,700	(\$4,151) \$36,900	(\$17,965) \$38,100	\$0 \$39,400	(\$17,539) \$40,700	\$0 \$42,000	\$0 \$43,400
			(, , , , ,	V				

Reserve Component List

Concrete Curbs and Gutters (10% with repaving)				
Concrete Aprons (3% every 5 years)		6,174		
Concrete Sidewalks and Steps (3% every 5 years)		7,503		
Mail Cluster Box Stations				
Pavement - Crack Repair, Patch and Stripe (1)	15,403		17,539	
Pavement Mill and Overlay - Streets and Parking Areas (1)				
Pavement Replacement - Streets and Parking Areas (1)				
Retaining Walls - Wood (1)	4,151	4,288		

30 Year Expenditure Summary



Westerley Homeowners Association - Townho

Fiscal year	2033	2034	2035	2036	2037	2038	2039	2040
Construction inflation rate	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
Compounded construction inflation	168.1%	173.7%	179.4%	185.3%	191.4%	197.7%	204.3%	211.0%
Beginning balance (September 30, 2017)	\$565,175	\$600,841	\$634,538	\$690,239	\$748,218	\$808,503	\$829,306	\$893,984
Inflated expenditures (3.3% annual)	(\$16,089)	(\$19,971)	\$0	\$0	\$0	(\$41,665)	\$0	\$0
Inflated expenditures (3.3% annual) Recommended reserve contributions (remaining 2017 contribution)	(\$16,089) \$44,800	(\$19,971) \$46,300	\$0 \$47,800	\$0 \$49,400	\$0 \$51,000	(\$41,665) \$52,700	\$0 \$54,400	\$0 \$56,200
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Reserve Component List

Concrete Curbs and Gutters (10% with repaving)		
Concrete Aprons (3% every 5 years)	7,263	8,543
Concrete Sidewalks and Steps (3% every 5 years)	8,826	10,382
Mail Cluster Box Stations		
Pavement - Crack Repair, Patch and Stripe (1)	19,971	22,741
Pavement Mill and Overlay - Streets and Parking Areas (1)		
Pavement Replacement - Streets and Parking Areas (1)		
Retaining Walls - Wood (1)		



Westerley Homeowners Association - Townhomes

Fiscal year	2041	2042	2043	2044	2045	2046	2047
Construction inflation rate	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
Compounded construction inflation	218.0%	225.2%	232.6%	240.3%	248.2%	256.4%	264.9%
Beginning balance (September 30, 2017)	\$961,249	\$1,031,233	\$1,077,917	\$1,130,831	\$1,208,785	\$1,289,787	\$1,373,974
Inflated expenditures (3.3% annual)	\$0	(\$25,894)	(\$22,260)	\$0	\$0	\$0	(\$783,311)
Recommended reserve contributions (remaining 2017 contribution)	\$58,100	\$60,000	\$62,000	\$64,000	\$66,100	\$68,300	\$70,600
Earned interest (1.2% PROJECTED yield rate)	\$11,884	\$12,579	\$13,173	\$13,954	\$14,902	\$15,887	\$12,211
Ending reserve balance	\$1,031,233	\$1,077,917	\$1,130,831	\$1,208,785	\$1,289,787	\$1,373,974	\$673,473

Reserve Component List

Concrete Curbs and Gutters (10% with repaving)		40,391
Concrete Aprons (3% every 5 years)	10,048	
Concrete Sidewalks and Steps (3% every 5 years)	12,211	
Mail Cluster Box Stations		84,754
Pavement - Crack Repair, Patch and Stripe (1)	25,894	
Pavement Mill and Overlay - Streets and Parking Areas (1)		
Pavement Replacement - Streets and Parking Areas (1)		658,167
Retaining Walls - Wood (1)		





Hybrid Reserve Expenditures and Funding Plan

January 1, 2017 through December 31, 2017

Year of forecast: 0

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2017: 100.0%

Unaudited, provided, beginning reserve balance as of September 30, 2017: \$332,185

Budgeted reserve contribution (3 remaining months of \$35,066 contribution): + \$8,767

Estimated interest earned (3 months of remaining interest at 0.2% yield rate): + \$175

Total remaining contributions:= \$8,942

Westerley Homeowners Association - Townhomes

2017 Expenditures

Number of Engineering Data phases Flexibility Section

Total expenditures: \$0

Ending reserve balance: \$341,126

\$361,313



2018

Hybrid Reserve Expenditures and Funding Plan

January 1, 2018 through December 31, 2018

Year of forecast: 1

Annual CONSTRUCTION inflation rate: 3.3%

Ending reserve balance:

Compounded CONSTRUCTION inflation in 2018: 103.3%

Beginning reserve balance: \$341,126

Budgeted reserve contribution: + \$33,300

Estimated interest earned (1.2% PROJECTED yield rate): + \$4,189

Total contributions:= \$37,489

Westerley Homeowners Association - Townhomes

2018 Expenditures (inflated)

Number of Engineering Data phases Flexibility Section

Concrete Sidewalks and Steps (3% every 5 years)

1 deferrable 6.181 (\$5,423)

Pavement - Crack Repair, Patch and Stripe (1)

1 firm 6.641 (\$11,880)

Total expenditures: (\$17,303)



Hybrid Reserve Expenditures and Funding Plan

January 1, 2019 through December 31, 2019

Year of forecast: 2

Annual CONSTRUCTION inflation rate: 3.3% Compounded CONSTRUCTION inflation in 2019: 106.7%

Beginning reserve balance: \$361,313

Recommended reserve contribution: + \$28,500

Estimated interest earned (1.2% PROJECTED yield rate): + \$4,507

Total contributions:= \$33,007

Westerley Homeowners Association - Townhomes

2019 Expenditures (inflated)

Number of phases

Flexibility

Engineering Data Section

Total expenditures: \$0

Ending reserve balance: \$394,320



Hybrid Reserve Expenditures and Funding Plan

January 1, 2020 through December 31, 2020

Year of forecast: 3

Annual CONSTRUCTION inflation rate: 3.3%
Compounded CONSTRUCTION inflation in 2020: 110.2%

ompounded donormouther initiation in 2020.

Beginning reserve balance: \$394,320

Recommended reserve contribution: + \$29,400

Estimated interest earned (1.2% PROJECTED yield rate): + \$4,908

Total contributions:= \$34,308

Westerley Homeowners Association - Townhomes

2020 Expenditures (inflated)

Number of phases

Flexibility

Engineering Data Section

Total expenditures: \$0

Ending reserve balance: \$428,628

\$464,354



2021

Hybrid Reserve Expenditures and Funding Plan

January 1, 2021 through December 31, 2021

Year of forecast: 4

Annual CONSTRUCTION inflation rate: 3.3%
Compounded CONSTRUCTION inflation in 2021: 113.9%

Beginning reserve balance: \$428,628

Recommended reserve contribution: + \$30,400

Estimated interest earned (1.2% PROJECTED yield rate): + \$5,326

Total contributions:= \$35,726

Westerley Homeowners Association - Townhomes

2021 Expenditures (inflated)

Number of phases

Flexibility

Engineering Data Section

Ending reserve balance:

Total expenditures: \$0



Hybrid Reserve Expenditures and Funding Plan

January 1, 2022 through December 31, 2022

5 Year of forecast:

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2022: 117.6%

> Beginning reserve balance: \$464,354

Recommended reserve contribution: + \$31,400

Estimated interest earned (1.2% PROJECTED yield rate): + \$4,788

> \$36,188 Total contributions:=

Westerley Homeowners Association - Townhomes

Number of Engineering Data 2022 Expenditures (inflated) phases **Flexibility** Section Concrete Curbs and Gutters (10% with repaving) 2 deferrable 6.121 (\$17,938) Mail Cluster Box Stations 1 deferrable 6.621 (\$37,640) <u>defe</u>rrable Pavement Mill and Overlay - Streets and Parking Areas (1) 6.661 (\$106,451)

(\$162,029) Total expenditures:

> Ending reserve balance: \$338,512



2023 (Threshold)

Hybrid Reserve Expenditures and Funding Plan

January 1, 2023 through December 31, 2023

Year of forecast: 6

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2023 (Threshold): 121.5%

> Beginning reserve balance: \$338,512

Recommended reserve contribution: + \$32,400

Estimated interest earned (1.2% PROJECTED yield rate): + \$3,416

> Total contributions:= \$35,816

Westerley Homeowners Association - Townhomes

2023 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Concrete Curbs and Gutters (10% with repaving)	2	deferrable	6.121	(\$18,530)
Concrete Aprons (3% every 5 years)	1	deferrable	6.141	(\$5,249)
Concrete Sidewalks and Steps (3% every 5 years)	1	deferrable	6.181	(\$6,379)
Pavement Mill and Overlay - Streets and Parking Areas (1)	2	deferrable	6.661	(\$109,964)

Total expenditures: (\$140,122)

Ending reserve balance: \$234,206



Hybrid Reserve Expenditures and Funding Plan

January 1, 2024 through December 31, 2024

7 Year of forecast:

Annual CONSTRUCTION inflation rate: 3.3% Compounded CONSTRUCTION inflation in 2024: 125.5%

> Beginning reserve balance: \$234,206

Recommended reserve contribution: + \$33,500

Estimated interest earned (1.2% PROJECTED yield rate): + \$3,011

> \$36,511 Total contributions:=

Westerley Homeowners Association - Townhomes

2024 Expenditures (inflated)

Number of phases

Flexibility

Engineering Data Section

Total expenditures: \$0

> Ending reserve balance: \$270,717



Hybrid Reserve Expenditures and Funding Plan

January 1, 2025 through December 31, 2025

8 Year of forecast:

Annual CONSTRUCTION inflation rate: 3.3% Compounded CONSTRUCTION inflation in 2025: 129.7%

> Beginning reserve balance: \$270,717

Recommended reserve contribution: + \$34,600

Estimated interest earned (1.2% PROJECTED yield rate): + \$3,456

> \$38,056 Total contributions:=

Westerley Homeowners Association - Townhomes

2025 Expenditures (inflated)

Number of phases

Flexibility

Engineering Data Section

Total expenditures: \$0

> Ending reserve balance: \$308,773



Hybrid Reserve Expenditures and Funding Plan

January 1, 2026 through December 31, 2026

Year of forecast: 9

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2026: 133.9%

Beginning reserve balance: \$308,773

Recommended reserve contribution: + \$35,700

Estimated interest earned (1.2% PROJECTED yield rate): + \$3,827

Total contributions:= \$39,527

Westerley Homeowners Association - Townhomes

2026 Expenditures (inflated)

Number of Engineering Data phases Flexibility Section

Pavement - Crack Repair, Patch and Stripe (1) 1 firm 6.641 (\$15,403)

Total expenditures: (\$15,403)

Ending reserve balance: \$332,897



Hybrid Reserve Expenditures and Funding Plan

January 1, 2027 through December 31, 2027

Year of forecast: 10

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2027: 138.4%

> Beginning reserve balance: \$332,897

Recommended reserve contribution: + \$36,900

Estimated interest earned (1.2% PROJECTED yield rate): + <u>\$4,191</u>

> Total contributions:= \$41,091

Westerley Homeowners Association - Townhomes

2027 Expenditures (inflated)

Number of Engineering Data phases **Flexibility** Section

Retaining Walls - Wood (1) 2 deferrable 6.901 (\$4,151)

Total expenditures: (\$4,151)

> Ending reserve balance: \$369,838



Hybrid Reserve Expenditures and Funding Plan

January 1, 2028 through December 31, 2028

Year of forecast: 11

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2028: 142.9%

Beginning reserve balance: \$369,838

Recommended reserve contribution: + \$38,100

Estimated interest earned (1.2% PROJECTED yield rate): + \$4,559

Total contributions:= \$42,659

Westerley Homeowners Association - Townhomes

Number of Engineering Data 2028 Expenditures (inflated) phases **Flexibility** Section Concrete Aprons (3% every 5 years) 1 deferrable 6.141 (\$6,174) Concrete Sidewalks and Steps (3% every 5 years) 1 deferrable 6.181 (\$7,503) <u>defe</u>rrable Retaining Walls - Wood (1) 2 6.901 (\$4,288)

Total expenditures: (\$17,965)

Ending reserve balance: \$394,531



Hybrid Reserve Expenditures and Funding Plan

January 1, 2029 through December 31, 2029

Year of forecast: 12

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2029: 147.6%

Beginning reserve balance: \$394,531

Recommended reserve contribution: + \$39,400

Estimated interest earned (1.2% PROJECTED yield rate): + \$4,971

Total contributions:= \$44,371

Westerley Homeowners Association - Townhomes

2029 Expenditures (inflated)

Number of phases

Flexibility

Engineering Data Section

Total expenditures: \$0

Ending reserve balance: \$438,902



Hybrid Reserve Expenditures and Funding Plan

January 1, 2030 through December 31, 2030

Year of forecast: 13

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2030: 152.5%

Beginning reserve balance: \$438,902

Recommended reserve contribution: + \$40,700

Estimated interest earned (1.2% PROJECTED yield rate): + \$5,406

Total contributions: = \$46,106

Westerley Homeowners Association - Townhomes

2030 Expenditures (inflated)

Number of Engineering Data phases Flexibility Section

Pavement - Crack Repair, Patch and Stripe (1) 1 firm 6.641 (\$17,539)

Total expenditures: (\$17,539)

Ending reserve balance: \$467,469



Hybrid Reserve Expenditures and Funding Plan

January 1, 2031 through December 31, 2031

Year of forecast: 14

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2031: 157.5%

Beginning reserve balance: \$467,469

Recommended reserve contribution: + \$42,000

Estimated interest earned (1.2% PROJECTED yield rate): + \$5,862

Total contributions:= \$47,862

Westerley Homeowners Association - Townhomes

2031 Expenditures (inflated)

Number of phases

Flexibility

Engineering Data Section

Total expenditures: \$0

Ending reserve balance: \$515,331



Hybrid Reserve Expenditures and Funding Plan

January 1, 2032 through December 31, 2032

Year of forecast: 15

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2032: 162.7%

Beginning reserve balance: \$515,331

Recommended reserve contribution: + \$43,400

Estimated interest earned (1.2% PROJECTED yield rate): + \$6,444

Total contributions: = \$49,844

Westerley Homeowners Association - Townhomes

2032 Expenditures (inflated)

Number of phases

Flexibility

Engineering Data Section

Total expenditures: \$0

Ending reserve balance: \$565,175



Hybrid Reserve Expenditures and Funding Plan

January 1, 2033 through December 31, 2033

Year of forecast: 16

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2033: 168.1%

Beginning reserve balance: \$565,175

Recommended reserve contribution: + \$44,800

Estimated interest earned (1.2% PROJECTED yield rate): + \$6,954

Total contributions: = \$51,754

Westerley Homeowners Association - Townhomes

2033 Expenditures (inflated)

Number of phases Flexibility

Concrete Aprons (3% every 5 years)

1 deferrable

6.141 (\$7,263)

Concrete Sidewalks and Steps (3% every 5 years)

1 deferrable

6.181 (\$8,826)

Total expenditures: (\$16,089)

Ending reserve balance: \$600,841



Hybrid Reserve Expenditures and Funding Plan

January 1, 2034 through December 31, 2034

Year of forecast: 17

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2034: 173.7%

> Beginning reserve balance: \$600,841

Recommended reserve contribution: + \$46,300

Estimated interest earned (1.2% PROJECTED yield rate): + \$7,368

> \$53,668 Total contributions:=

Westerley Homeowners Association - Townhomes

2034 Expenditures (inflated)

Number of Engineering Data phases **Flexibility** Section

Pavement - Crack Repair, Patch and Stripe (1) (\$19,971) 1 firm 6.641

Total expenditures: (\$19,971) Ending reserve balance: \$634,538



Hybrid Reserve Expenditures and Funding Plan

January 1, 2035 through December 31, 2035

Year of forecast: 18

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2035: 179.4%

Beginning reserve balance: \$634,538

Recommended reserve contribution: + \$47,800

Estimated interest earned (1.2% PROJECTED yield rate): + \$7,901

Total contributions: = \$55,701

Westerley Homeowners Association - Townhomes

2035 Expenditures (inflated)

Number of phases

Flexibility

Engineering Data Section

Total expenditures: \$0

Ending reserve balance: \$690,239



Hybrid Reserve Expenditures and Funding Plan

January 1, 2036 through December 31, 2036

Year of forecast: 19

Annual CONSTRUCTION inflation rate: 3.3% Compounded CONSTRUCTION inflation in 2036: 185.3%

Beginning reserve balance: \$690,239

Recommended reserve contribution: + \$49,400

Estimated interest earned (1.2% PROJECTED yield rate): + \$8,579

> Total contributions:= \$57,979

Westerley Homeowners Association - Townhomes

2036 Expenditures (inflated)

Number of phases

Flexibility

Engineering Data Section

Total expenditures: \$0

> Ending reserve balance: \$748,218



Hybrid Reserve Expenditures and Funding Plan

January 1, 2037 through December 31, 2037

Year of forecast: 20

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2037: 191.4%

Beginning reserve balance: \$748,218

Recommended reserve contribution: + \$51,000

Estimated interest earned (1.2% PROJECTED yield rate): + \$9,285

Total contributions:= \$60,285

Westerley Homeowners Association - Townhomes

2037 Expenditures (inflated)

Number of phases

Flexibility

Engineering Data Section

Total expenditures: \$0

Ending reserve balance: \$808,503



Hybrid Reserve Expenditures and Funding Plan

January 1, 2038 through December 31, 2038

Year of forecast: 21

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2038: 197.7%

Beginning reserve balance: \$808,503

Recommended reserve contribution: + \$52,700

Estimated interest earned (1.2% PROJECTED yield rate): + \$9,768

Total contributions:= \$62,468

Westerley Homeowners Association - Townhomes

Number of Engineering Data 2038 Expenditures (inflated) phases **Flexibility** Section Concrete Aprons (3% every 5 years) 1 deferrable 6.141 (\$8,543)1 Concrete Sidewalks and Steps (3% every 5 years) deferrable 6.181 (\$10,382) Pavement - Crack Repair, Patch and Stripe (1) firm 6.641 (\$22,741)

Total expenditures: (\$41,665)

Ending reserve balance: \$829,306



Hybrid Reserve Expenditures and Funding Plan

January 1, 2039 through December 31, 2039

Year of forecast: 22

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2039: 204.3%

Beginning reserve balance: \$829,306

Recommended reserve contribution: + \$54,400

Estimated interest earned (1.2% PROJECTED yield rate): + \$10,278

Total contributions:= \$64,678

Westerley Homeowners Association - Townhomes

2039 Expenditures (inflated)

Number of phases

Flexibility

Engineering Data Section

Total expenditures: \$0

Ending reserve balance: \$893,984



Hybrid Reserve Expenditures and Funding Plan

January 1, 2040 through December 31, 2040

Year of forecast: 23

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2040: 211.0%

Beginning reserve balance: \$893,984

Recommended reserve contribution: + \$56,200

Estimated interest earned (1.2% PROJECTED yield rate): + \$11,065

Total contributions:= \$67,265

Westerley Homeowners Association - Townhomes

2040 Expenditures (inflated)

Number of phases

Flexibility

Engineering Data Section

Total expenditures: \$0

Ending reserve balance: \$961,249



Hybrid Reserve Expenditures and Funding Plan

January 1, 2041 through December 31, 2041

Year of forecast: 24

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2041: 218.0%

Beginning reserve balance: \$961,249

Recommended reserve contribution: + \$58,100

Estimated interest earned (1.2% PROJECTED yield rate): + \$11,884

Total contributions: = \$69,984

Westerley Homeowners Association - Townhomes

2041 Expenditures (inflated)

Number of phases

Flexibility

Engineering Data Section

Total expenditures: \$0

Ending reserve balance: \$1,031,233



Hybrid Reserve Expenditures and Funding Plan

January 1, 2042 through December 31, 2042

25 Year of forecast:

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2042: 225.2%

> Beginning reserve balance: \$1,031,233

Recommended reserve contribution: + \$60,000

Estimated interest earned (1.2% PROJECTED yield rate): + \$12,579

> Total contributions:= \$72,579

Westerley Homeowners Association - Townhomes

2042 Expenditures (inflated)

Number of Engineering Data phases **Flexibility** Section

Pavement - Crack Repair, Patch and Stripe (1) (\$25,894) 1 firm 6.641

Total expenditures: (\$25,894)

> \$1,077,917 Ending reserve balance:

(\$12,211)



2043

Hybrid Reserve Expenditures and Funding Plan

January 1, 2043 through December 31, 2043

Year of forecast: 26

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2043: 232.6%

> Beginning reserve balance: \$1,077,917

Recommended reserve contribution: + \$62,000

6.181

Estimated interest earned (1.2% PROJECTED yield rate): + \$13,173

deferrable

Total contributions:= \$75,173

Westerley Homeowners Association - Townhomes

Concrete Sidewalks and Steps (3% every 5 years)

Number of Engineering Data 2043 Expenditures (inflated) phases **Flexibility** Section Concrete Aprons (3% every 5 years) deferrable (\$10,048) 1 6.141

Total expenditures: (\$22,260)

Ending reserve balance: \$1,130,831



Hybrid Reserve Expenditures and Funding Plan

January 1, 2044 through December 31, 2044

Year of forecast: 27

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2044: 240.3%

Beginning reserve balance: \$1,130,831

Recommended reserve contribution: + \$64,000

Estimated interest earned (1.2% PROJECTED yield rate): + \$13,954

Total contributions:= \$77,954

Westerley Homeowners Association - Townhomes

2044 Expenditures (inflated)

Number of phases

Flexibility

Engineering Data Section

Total expenditures: \$0

Ending reserve balance: \$1,208,785



Hybrid Reserve Expenditures and Funding Plan

January 1, 2045 through December 31, 2045

28 Year of forecast:

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2045: 248.2%

> Beginning reserve balance: \$1,208,785

Recommended reserve contribution: + \$66,100

Estimated interest earned (1.2% PROJECTED yield rate): + \$14,902

> Total contributions:= \$81,002

Westerley Homeowners Association - Townhomes

2045 Expenditures (inflated)

Number of phases

Flexibility

Engineering Data Section

Total expenditures: \$0

> \$1,289,787 Ending reserve balance:



Hybrid Reserve Expenditures and Funding Plan

January 1, 2046 through December 31, 2046

Year of forecast: 29

Annual CONSTRUCTION inflation rate: 3.3% Compounded CONSTRUCTION inflation in 2046: 256.4%

Beginning reserve balance: \$1,289,787

Recommended reserve contribution: + \$68,300

Estimated interest earned (1.2% PROJECTED yield rate): + \$15,887

Total contributions: = \$84,187

Westerley Homeowners Association - Townhomes

2046 Expenditures (inflated)

Number of Engineering Data phases Flexibility Section

Total expenditures: \$0

Ending reserve balance: \$1,373,974



Hybrid Reserve Expenditures and Funding Plan

January 1, 2047 through December 31, 2047

Year of forecast: 30

Annual CONSTRUCTION inflation rate: 3.3%

Compounded CONSTRUCTION inflation in 2047: 264.9%

Beginning reserve balance: \$1,373,974

Recommended reserve contribution: + \$70,600

Estimated interest earned (1.2% PROJECTED yield rate): + \$12,211

Total contributions:= \$82,811

Westerley Homeowners Association - Townhomes

Number of Engineering Data 2047 Expenditures (inflated) phases **Flexibility** Section Concrete Curbs and Gutters (10% with repaving) 2 deferrable 6.121 (\$40,391) Mail Cluster Box Stations 1 deferrable 6.621 (\$84,754) <u>defe</u>rrable Pavement Replacement - Streets and Parking Areas (1) 6.663 (\$658,167)

Total expenditures: (\$783,311)

Ending reserve balance: \$673,473

WESTERLEY HOMEOWNERS ASSOCIATION APPROVED BUDGET FOR 2017

NOV 1, 2017

010180

For the year beginning 01-01 and ending 12-31

Acct# Category	FYE 12/31/2017
INCOME	
4020 ASSESSMENTS - MONTHLY 4060 LATE CHARGES 4293 LEGAL/COLLECTION 4340 INTEREST - RESERVES 4350 INTEREST ALLOC TO RESERVES 4969 ALLOWANCE FOR DOUBTFUL ACCOUNTS	351,312 1,845 1,964 1,372 (1,372) (4,000)
	351,121
TOTAL INCOME	351,121
EXPENSES GROUNDS MAINTENANCE	
6035 GENERAL MAINTENANCE 6155 TRASH REMOVAL - TOWNHOME 6157 PET WASTE STATIONS 6202 LANDSCAPING 6360 GROUND LIGHTING-DECORATIVE	4,000 34,800 5,000 33,000 6,769
	83,569
CONTRACTS	30,000
6904 TRASH REMOVAL - SINGLE FAMILY 6907 SNOW SERVICES	25,000 4,000
0907 SNOW SERVICES	4,000 59,000
POOL/CLUBHOUSE EXPENSE	
7040 CONTRACTED POOL SERVICE 7043 POOL PERMIT	34,950 300

WESTERLEY HOMEOWNERS ASSOCIATION APPROVED BUDGET FOR 2017

NOV 1, 2017

010180

For the year beginning 01-01 and ending 12-31

Acct# Category	FYE 12/31/2017
7053 POOL-REPAIRS & MAINTENANCE 7100 ELECTRIC POWER 7180 POOL SUPPLIES 7184 POOL ADMINISTRATIVE/PASSES 7305 POOL TELEPHONE	8,600 3,500 1,600 300 350
	49,600
UTILITIES	
7910 ELECTRIC - TH STREET LIGHTS 7920 WATER/SEWER	3,500 4,500 8,000
ADMINISTRATIVE	
8020 MANAGEMENT FEE 8024 OTHER MGMT FEES 8060 COPIES/PRINTING/SUPPLIES 8061 WEBSITE 8080 AUDIT/TAX PREP 8100 LEGAL EXPENSE 8106 LEGAL EXPENSE - COLLECTIONS 8120 INSURANCE 8140 LICENSE 8180 INCOME TAX 8380 MEETING EXPENSES 8382 RECORDING SECRETARY	37,320 5,000 2,500 25 4,000 2,750 10,000 5,278 325 100 200 2,388
BUDGETED TRANSFERS TO RESERVE FUND	2 200
9109 SEALCOATING - TOWNHOME 9170 COMMON RESERVES 9172 TOWNHOUSE 9206 STORM & DROUGHT RESERVE 9245 SNOW REMOVAL RESERVE	2,866 36,000 32,200 2,000 8,000

WESTERLEY HOMEOWNERS ASSOCIATION APPROVED BUDGET FOR 2017 NOV 1, 2017

010180

For the year beginning 01-01 and ending 12-31

Acct# Category	FYE 12/31/2017
TOTAL EXPENSES	351,121
NET PROFIT (LOSS)	0

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Summary of Qualifications

Justin J. Maier, P.E., RS
Partner

Services

Justin J. Maier is a partner and co-founder of Superior Reserve Engineering and Consulting. Justin J. Maier provides *expert* reserve and transition studies, and critical property reviews. Properties that have benefited from his experience include townhome associations, condominium associations, planned unit developments, marinas, resorts, hotels, churches and country clubs. These properties vary from complex high rise buildings to vintage buildings of historical significance. He has provided these services to *more than* 1,600 properties throughout the United States and worldwide.



Prior Experience

Prior to co-founding Superior Reserve with Nik J. Clark, Mr. Maier had conducted reserve and transitions studies with Reserve Advisors for 14 years. During this time, he was the Director of Product Development where he oversaw the development, improvement and production efficiency of reserve and transition studies for the firm. He was the leading producer of reserve and transition studies. Mr. Maier was instrumental in improving the quality of reports both in content, clarity and appearance. Reserve Advisors experienced tremendous success based on the standard of reserve and transition study quality that he implemented.

Mr. Maier was a structural engineer for Wausau Window and Wall Systems. There he analyzed stresses in horizontal and vertical components of aluminum frame curtain wall window systems in projects throughout the United States for both wind pressure and suction loads. He was involved in field work to correct improperly installed system components.

Mr. Maier was an Assistant Engineer for Crest Consulting Engineers. His services required on-site field investigation of architectural and structural failures, analysis of the preexisting design and conditions, and determination of the design shortfalls or owner modifications that caused the failures. He designed remedial repairs, produced cost estimates for the repairs, prepared the specifications and oversaw the implementation of the repairs.

Expert Witness

Through the expert witness of Mr. Maier, the Villages at Cumberland Trail in Columbus, Ohio and The Retreat Homeowners Association in Indianapolis, Indiana were able to successfully negotiate a settlement for their construction defects.

Education

Milwaukee School of Engineering (MSOE)

Professional Affiliations

Professional Engineer (P.E.) - licenses held in WI, IL, OH, NY, TX, DC, VA, MD, MI, MN, PA Reserve Specialist (RS) - credential awarded by Community Association's Institute (CAI) Certified Pool / Spa Operator - issued by the National Swimming Pool Foundation



Terms, Conditions and Limitations

- 1) Superior Reserve Engineering & Consulting (SREC) will perform a visual inspection of the property. While due diligence will be exercised during the onsite inspection, we make no representations regarding latent or hidden defects not observable from a visual inspection. We do not conduct invasive or destructive testing nor provide an exhaustive review of building code compliance. Material testing, core sampling, performance testing of building or site elements and equipment is not part of the scope of work.
- 2) Our opinions of estimated costs and remaining useful lives are not a guarantee of the actual costs of replacement, a warranty of the common elements or other property elements, or a guarantee of remaining useful lives.
- 3) SREC may rely on information provided to us, by the client named in this contract, in our report. We assume information provided to us by the client to be correct and assume no liability for the accuracy of information provided to us by the client. You agree to indemnify and hold us harmless against and from any and all losses, claims, actions, damages, expenses or liabilities, including reasonable attorneys' fees, to which we may become subject in connection with this engagement, because of any false, misleading or incomplete information which we have relied upon as 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.
- 4) Our Reserve Study Report in whole or part is not and cannot be used as a design specification, design engineering services or an appraisal.
- 5) Substances such as asbestos, urea-formaldehyde foam insulation, other chemicals, toxic wastes, environmental mold or other potentially hazardous materials could, if present, adversely affect the validity of this study. Unless otherwise stated in this report, the existence of hazardous substance, that may or may not be present on or in the property, was not considered. Our opinions are predicated on the assumption that there are no hazardous materials on or in the property. We assume no responsibility for any such conditions. We are not qualified to detect such substances, quantify the impact, or develop the remedial cost.
- 6) In the event of errors in our report, SREC's liability is limited to the cost of this study.



Curbs and Gutters

Material: concrete

Size (inches): 30

Overall condition: good to fair

Specific condition: isolated cracks and deterioration

Locations: lining the streets and parking areas

Quantity (linear feet): 8,800

Per home (linear feet): 50

Cost (\$/linear foot): \$35

Current total cost (note 1): \$305,000

Coordinate with: repaving streets and parking areas

Assumptions: 3,500 psi replacement concrete



30 inch concrete curbs and gutters



minor deterioration



very minor crack near joint



cracked concrete

(note 1) Concrete curbs and gutters have a useful life of up to 60 years. Replacement of all the curbs and gutters during a single event is unlikely. Instead, we assume periodic replacements of limited quantities.



Aprons

Material: concrete

Overall condition: good

Specific condition: no visible deterioration

Quantity (square feet): 18,000

Per home (square feet): 90

Cost (\$/square foot): \$8

Current total cost (note 1): \$144,000

Assumptions: 5-inch thick, 3,000 psi replacement concrete

with 6x6 - W1.4xW1.4 steel reinforcing mesh

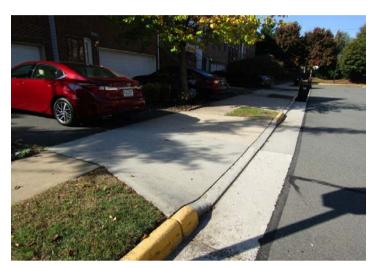
Operating expenses: interim replacements of deteriorated

sections, slab jacking

Coordinate with: concrete sidewalks and steps



concrete apron



concrete aprons



concrete aprons



concrete apron

(note 1) Concrete aprons have a useful life of up to 60 years. Replacement of all the aprons during a single event is unlikely. Instead, we assume periodic replacements of limited quantities.



Sidewalks and Steps

Material: concrete

Overall condition: good to poor

Specific condition: trip hazards

Locations: parallel with streets

Length (linear feet): 5,300

Quantity (square feet): 21,200

Per home (square feet): 110

Cost (\$/square foot): \$8.30

Current total cost (note 1): \$175,000

Assumptions: 4-inch thick, 3,000 psi replacement concrete

with 6x6 - W1.4xW1.4 steel reinforcing mesh

Operating expenses: marking of trip hazards, interim

replacements of deteriorated sections, slab jacking (pumping grout under sections to lift

them)

Coordinate with: concrete aprons



concrete sidewalks and steps



trip hazards



trip hazard



trip hazard

(note 1) Concrete sidewalks and steps have a useful life of up to 60 years. Replacement of all the sidewalks and steps during a single event is unlikely. Instead, we assume periodic replacements of limited quantities.



Mail Cluster Box Stations

Material: plastic

Manufacturer: American Locker Security Systems Inc.

Number of mail stations: 16

Boxes per station (each): 12 and 16

Overall condition: good to fair

Specific condition: weathering and limited replacements with

metal stations

Cost (\$/station): \$2,000

Current total cost: \$32,000

Cost per home: \$168

Operating expenses: painting, replacement of locks



American Locker Security Systems Inc. plastic mail cluster box station



mailbox station



mailbox station



mailbox stations



Pavement - Crack Repair, Patch and Stripe

Location: streets and parking areas

Overall condition: fair

Specific condition: cracks and minor settlement

Length (miles): 0.9

Quantity (square yards): 11,300

Per/home (square yards): 59

Total cost (\$/square yard): \$1.00

Crack repair & patch cost: \$11,500

Total cost per home: \$61

Assumptions: repair all open cracks and patch deteriorated

pavement

Anticipated costs: crack repair

patch (1%)

stripe parking areas

repairs to catch basins (10 each)

Green ideas: The property has not seal coated the asphalt pavement and we agree with this practice. It is our professional opinion that seal coating asphalt pavement does not extend the useful life of the pavement. Seal coats do not add structural strength to the pavement. Seal coating is also a source of environmental contamination.

Engineering solutions: The property has conducted appropriate prior repairs and maintenance to the pavement based on our inspection. However, additional repairs are needed. Continued maintenance including crack repairing all joints and patching potholes in the pavement will prevent water infiltration. This will minimize deterioration of the pavement and underlying base, and maximize the life of the pavement.



open joint in repaired crack



repaired and unrepaired cracks



repaired and unrepaired cracks



pavement repairs



Pavement Mill and Overlay - Streets and Parking Areas

Material: asphalt

Locations: streets and parking areas

Overall condition: fair

Specific condition: cracks and minor settlement

Typical traffic type: residential vehicles and garbage trucks

Length (miles): 0.9

Quantity (square yards): 11,300

Per home (square yards): 59

Quantity of catch basins: 10

Square yards of pavement

per catch basin:

1,100 (reasonable amount of pavement per

drain)

Repaving method: mill and overlay

Cost (\$/square yard): \$16

Current total cost: \$181,000

Cost per home: \$953

Coordinate with: partial replacements of concrete curbs and

gutters

Anticipated costs: mill (grind off) 2 inches of all pavement

overlay 2 inches of new pavement repairs to base pavement (10%) repairs to catch basins (10 each)

stripe parking areas

Green ideas: Consider the *mix and mill* process for repaving. This process reuses the milled pavement in the overlay thereby minimizing waste.

Engineering solutions: Mill and overlay the pavement with the onset of deterioration and prior to widespread deterioration to preserve the base and defer the need for the more costly total replacement method of repaving.



asphalt pavement at streets and parking areas



open joint in repaired crack



repaired pavement



repaired and unrepaired cracks



catch basin



pavement deterioration



pavement overview



crack repairs and deterioration



pavement repairs



crack repairs



repaired and unrepaired cracks



pavement deterioration



Pavement Replacement - Streets and Parking Areas

Material: asphalt

Locations: streets and parking areas

Typical traffic type: residential vehicles and garbage trucks

Length (miles): 0.9

Quantity (square yards): 11,300

Per home (square yards): 59

Quantity of catch basins: 10

Square yards of pavement

per catch basin:

1,100 (reasonable amount of pavement per

drain)

Repaving method: replacement

Cost (\$/square yard): \$44

Current total cost: \$497,000

Cost per home: \$2,616

Coordinate with: partial replacements of concrete curbs and

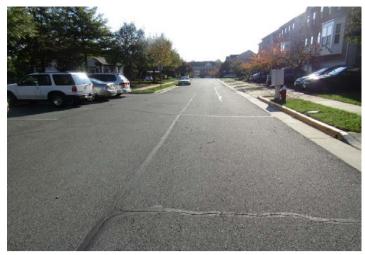
gutters

Anticipated costs: remove pavement, regrade & augment base

install 4 inches of new pavement repairs to catch basins (10 each)

stripe parking areas

Engineering solutions: The scope of this reserve study is 30 years. Asphalt pavement lasts approximately 25 years. After near term milling and overlaying of the asphalt pavement, the property should plan for total replacement of the pavement approximately 25 years later. This process of repaving includes removing the existing pavement, regrading and augmenting the base, and installing 4 inches of new pavement in a minimum of two lifts to ensure proper compaction.



asphalt pavement at streets and parking areas



open joint in repaired crack



repaired pavement



repaired and unrepaired cracks



Retaining Walls - Wood

Material: wood

Size of timbers (inches): 6 by 6

Drainage system: does not exist to relieve hydrostatic pressure

Overall condition: fair

Specific condition: weathering and leaning

Locations: Tamarack Ridge

Number of walls (each): 2

Length (linear feet): 100

Quantity (square feet): 300

Cost (\$/square foot): \$22

Current total cost: \$6,000

Cost per home: \$32

Anticipated costs: remove walls

install new walls

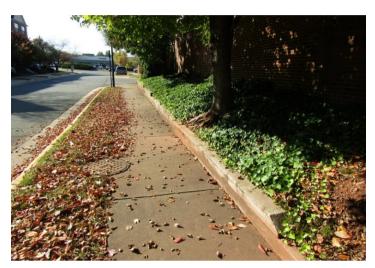
install drainage system

backfill with non-compressing fill

Actionable recommendations: When replacement comes due, the property should replace wood retaining walls with masonry. The labor cost is nearly the same and although the material cost is more, the useful life of masonry blocks is much longer than wood timbers.



wood retaining wall



leaning retaining wall



weathered wood