

Greenbrook Townhouses Reserve Study



Reserve Study Project No. 15041

Prepared for

Greenbrook Townhouses Association

Aurora, Colorado

Prepared by

Borne Consulting

PO Box 3890

Parker, Colorado 80134

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Introduction

Borne Consulting has been commissioned by Greenbrook Townhouses Association to prepare a Reserve Study update. The purpose of this Reserve Study is to evaluate the common-area components for major repair, maintenance and replacement that are the responsibility of the Association. This Study provides a limited-scope evaluation of the existing condition and remaining life of the common-area components. The Study also includes estimated costs for the major repair, maintenance and/or replacement of the items to enable the Association to establish an adequate level of reserve funds for the upkeep of the property. Major repair, maintenance and/or replacement items are defined as anything that costs over \$1,000.

Community Description

Greenbrook Townhouses Association consists of 50 buildings that house 212 townhome-style residences that were built in phases, with the first phase in 1982 (121 units) and the second phase in 1998 (91 units). The Association maintenance responsibilities consists of the exterior building envelop, exterior building lights, skylights (first phase only), roofing, handrails, pathway lights, driveways, concrete sidewalks, concrete drain pans, retaining walls, mail kiosk, entrance monuments, gazebo, tennis court, pool, mechanical equipment associated with the pool, clubhouse, irrigation, and landscaped areas.

Approach

To prepare this Reserve Study Projection, Borne Consulting has completed the necessary research, the component report, the cost estimates, the financial projections, and the projection interpretation. The projections were assembled using the cash flow method. This method develops a reserve funding plan where contributions to the reserve fund are designed to offset the variable annual expenditures from the reserve fund. Different reserve funding plans are tested against the anticipated schedule of reserve expenses until a desired funding program is achieved.

Reference Material

The following references were provided to Borne Consulting for this Reserve Study by the client:

- 2015 budget
- Interest rate earned on invested capital funds
- Historical expense and past capital project information

Exclusions

Items not included in this Projection Update are:

- Non- common area components.
- Association components that have estimated costs below the reserve component threshold amount of \$1,000.
- Long lasting items with estimated economic lives exceeding 30 years, such as sanitary sewers or building structural components. However, these items are included if they are known to have a fairly predictable anticipated useful life that falls within the term of the Study.

 Normal operating items, i.e., taxes, insurance, snow plowing, utilities, cleaning and landscape maintenance, etc.

Disclaimer

This Reserve Study was prepared specifically for Greenbrook Townhouses Association. The information contained within this document has been assembled in conjunction with the client and is intended to assist the client with its reserve planning and funding. Borne Consulting does not guarantee, either explicitly or implied, that all repair and replacement items have been identified, the accuracy of the probable costs or the component lives.

In providing the opinions of probable replacement costs, the client understands that Borne Consulting has no control over costs or the price of labor, equipment or materials, or over the contractor's method of pricing, and that the opinions of probable replacement costs provided herein are made on the basis of Borne Consulting's qualifications and experience. Borne Consulting makes no warranty, expressed or implied, as to the accuracy of such opinions as compared to actual bid or construction costs.

All comments made are based on conditions seen at the time of the site visit. We do not accept any responsibility for unknown or unknowable conditions within the existing site or structures.

Regrade earthen areas - 2018

1 UT @ \$3,000.00 Asset ID A01.1 \$3,000.00 Asset Cost Topography and Grading Percent Replacement 100% Building Grading and Drainage **Future Cost** \$3,182.70 May 2012

Placed in Service Useful Life 6 Replacement Year 2018 Remaining Life 2



Description: The buildings are surrounded primarily by planter beds that consist of cobblestone and/or rock and/or mulch landscaping. Stormwater runoff from the buildings is discharged from building downspouts and with the surface slope of the landscape areas; the runoff water is either infiltrated into the ground or conveyed into the community drainage collection systems.

Condition: The building grading and drainage is in good to fair condition. It was noted that in several areas the grade next to the building foundation is guite flat.

Action(s):

Cyclically regrade and maintain the earthen areas adjacent to the building foundation systems every 6 years, starting in 2018.

Regrade grass swales - 2018

grass swales - 2018		1 UT	@ \$3,000.00
Asset ID	A02.1	Asset Cost	\$3,000.00
Topography and	Grading	Percent Replacement	100%
Site Grading and D	rainage	Future Cost	\$3,182.70

Placed in Service May 2008 Useful Life 8 2 Adjustment Replacement Year 2018 Remaining Life 2



Description: The onsite drainage systems within the community utilize grass and cobblestone swales, sloped grade, area inlets, sidewalk chase drains, and concrete drain pans to convey surface runoff to the public storm drainage systems.

Condition: The onsite drainage systems are in good to fair condition. Some grass swales in areas are undefined and are in need of regrading to be more effective in conveying stormwater runoff.

- Cyclically regrade a portion of the grass swales every 8 years, starting in 2018.
- Cyclically check and clean debris from the metal grated inlets and area inlets along with replacement of damaged area inlet lids to ensure proper function every year. This cost is not included in the Study because normally associations perform this as a maintenance item and the cost is considered an operating expense.

Crackfill - 2017		4 UT	@ #2 000 00
Clackiii 2017		1 UT	@ \$3,000.00
Asset ID	B01.2	Asset Cost	\$3,000.00
	Paving	Percent Replacement	100%
	Driveways	Future Cost	\$3,090.00
Placed in Service	May 2007		
Useful Life	1		
Adjustment	9		
Replacement Year	2017		
Remaining Life	1		



Description: Estimated 134,967 square feet of bituminous asphalt pavement.

Condition: Good to fair condition. Generally most of the asphalt pavement is structurally sound with some areas of stress cracking. There has been a lot of crack filling done which is good. There will be a need for full depth patch work over the next few years.

Action(s):

• Cyclically crackfill every year, starting in 2017.

	13/1 067 SF	@ \$2.00
D04 4	•	•
B01.4	Asset Cost	\$134,967.00
Paving	Percent Replacement	50%
Driveways	Future Cost	\$176,101.32
May 2012		
20		
-7		
2025		
9		
	Driveways May 2012 20 -7 2025	Paving Percent Replacement Driveways Future Cost May 2012 20 -7 2025



Description: Estimated 134,967 square feet of bituminous asphalt pavement.

Condition: Good to fair condition. Generally most of the asphalt pavement is structurally sound with some areas of stress cracking. There has been a lot of crack filling done which is good. There will be a need for full depth patch work over the next few years.

- Provide full depth patches in select areas every 4 years starting in 2017.
- Mill and place new asphalt surface associated with the parking areas every 20 years, starting in 2025.

Mill and overlay - 2026		134,967 SF	@ \$2.00
Asset ID	B01.5	Asset Cost	\$134,967.00
	Paving	Percent Replacement	50%
	Driveways	Future Cost	\$181,384.36
Placed in Service	May 2012		
Useful Life	20		
Adjustment	-6		
Replacement Year	2026		
Remaining Life	10		



Description: Estimated 134,967 square feet of bituminous asphalt pavement.

Condition: Good to fair condition. Generally most of the asphalt pavement is structurally sound with some areas of stress cracking. There has been a lot of crack filling done which is good. There will be a need for full depth patch work over the next few years.

- Provide full depth patches in select areas every 4 years starting in 2017.
- Mill and place new asphalt surface associated with the parking areas every 20 years, starting in 2026.

Provide full depth patch	nes - 2017	800 SF	@ \$4.00
Asset ID	B01.3	Asset Cost	\$3,200.00
	Paving	Percent Replacement	100%
	Driveways	Future Cost	\$3,296.00
Placed in Service	May 2012		
Useful Life	4		
Adjustment	1		
Replacement Year	2017		
Remaining Life	1		



Description: Estimated 134,967 square feet of bituminous asphalt pavement.

Condition: Good to fair condition. Generally most of the asphalt pavement is structurally sound with some areas of stress cracking. There has been a lot of crack filling done which is good. There will be a need for full depth patch work over the next few years.

- Provide full depth patches in select areas every 4 years starting in 2017.
- Mill and place new asphalt surface associated with the parking areas every 20 years, starting in 2025.

Seal coat - 2017		134,967 SF	@ \$0.25
Asset ID	B01.1	Asset Cost	\$33,741.75
	Paving	Percent Replacement	100%
	Driveways	Future Cost	\$34,754.00
Placed in Service	May 2007		
Useful Life	5		
Adjustment	5		
Replacement Year	2017		
Remaining Life	1		



Description: Estimated 134,967 square feet of bituminous asphalt pavement.

Condition: Good to fair condition. Generally most of the asphalt pavement is structurally sound with some areas of stress cracking. There has been a lot of crack filling done which is good. There will be a need for full depth patch work over the next few years.

Action(s):

 Cyclically seal coat, and apply new paint striping for all parking stalls every 5 years, starting in 2017.

Replace damaged	sections - 2020	600 SF	@ \$6.00
Asset ID	C01.1	Asset Cost	\$3,600.00
	Flatwork	Percent Replacement	100%
	Concrete Walkways	Future Cost	\$4,051.83
Placed in Service	May 2012		
Useful Life	6		
Adjustment	2		
Replacement Year	2020		
Remaining Life	4		



Description: Estimated 36,445 square feet of walkways that are presumed to be ongrade, non-reinforced slabs.

Condition: Good condition.

- Cyclically remove and replace damaged sections of the concrete walkways every 6 years, starting in 2020.
- Inspect the surface and repair any cracks or deteriorating concrete walkways every year. This cost is not included in the Study because normally associations perform this as a maintenance item and the cost is considered an operating expense.

Replace damaged se	ections - 2022	1 UT	@ \$5,000.00
Asset ID	C02.1	Asset Cost	\$5,000.00
	Flatwork	Percent Replacement	100%
	Concrete Stairs	Future Cost	\$5,970.26
Placed in Service	May 2000		
Useful Life	10		
Adjustment	12		
Replacement Year	2022		
Remaining Life	6		



Description: Estimated 820 square feet of concrete stairs that are presumed to be ongrade and reinforced.

Condition: Good condition with no visual signs of deterioration or cracking.

- Cyclically remove and replace damaged sections of the concrete stairs every 10 years, starting in 2022.
- Inspect the surface and repair any cracks or deteriorating concrete stairs every year.
 This cost is not included in the Study because normally associations perform this as a maintenance item and the cost is considered an operating expense.

Replace damaged	sections - 2017	705.05	© \$12.00
Replace damaged	SCCIIOTIS ZOTT	705 SF	@ \$12.00
Asset ID	C03.1	Asset Cost	\$8,460.00
	Flatwork	Percent Replacement	100%
	Concrete Pool Deck	Future Cost	\$8,713.80
Placed in Service	May 2000		
Useful Life	6		
Adjustment	11		
Replacement Year	2017		
Remaining Life	1		



Description: Estimated 4,705 square feet of concrete pool deck that is cast-in-place, ongrade, reinforced, concrete slab.

Condition: Good to fair condition with some random cracking. The concrete pool deck is moderately covered with cracks and it has been maintained by the use of crack sealant.

- Cyclically remove and replace damaged sections of the concrete pool deck every 6 years, starting in 2017.
- Inspect the surface and repair any cracks or deteriorating concrete pool deck every year. This is not included in the Study because normally associations perform this as a maintenance item and the cost is considered an operating expense.

Replace damaged se	ctions - 2020	200 1 5	@ ¢14.00
replace damaged se	0110113 2020	300 LF	@ \$14.00
Asset ID	C04.1	Asset Cost	\$4,200.00
	Flatwork	Percent Replacement	100%
	Concrete Pan	Future Cost	\$4,727.14
Placed in Service	May 2000		
Useful Life	5		
Adjustment	15		
Replacement Year	2020		
Remaining Life	4		



Description: Estimated 15,182 square feet of concrete drain pans. The drain pans on site were 1- to 3-foot wide and presumed to be on-grade and reinforced. Several drain pans on site were attached or adjacent to walkways.

Condition: All concrete drain pans are in good to fair condition.

- Cyclically remove and replace damaged sections of the concrete drain pans every 5 years, starting in 2020.
- Inspect the surface and repair any cracks or deteriorating concrete pan every year.
 This cost is not included in the Study because normally associations perform this as a maintenance item and the cost is considered an operating expense.

Replace damaged se	ections - 2016	350 LF	@ \$15.00
Asset ID	C05.1	Asset Cost	\$5,250.00
	Flatwork	Percent Replacement	100%
	Curb and Gutter	Future Cost	\$5,250.00
Placed in Service	May 2000		
Useful Life	6		
Adjustment	4		
Replacement Year	2016		
Remaining Life	0		



Description: Estimated 6,469 linear of 6-inch vertical face curbs with 12- to 24-inch wide concrete gutter sloped in a catch or spill position.

Condition: Good to fair condition. Most communities typically replace damaged sections of curb and gutter as needed rather than 100% replacement.

- Cyclically remove and replace damaged sections of the concrete curb and gutter every 6 years, starting in 2020.
- Inspect the surface and repair any cracks or deteriorating concrete curbs every year.
 This cost is not included in the Study because normally associations perform this as a maintenance item and the cost is considered an operating expense.

None		1 LIT	
		1 UT	@
Asset ID	C06.1	Asset Cost	
	Flatwork	Percent Replacement	100%
	Concrete Slabs	Future Cost	
Placed in Service	May 2010		
Useful Life	40		
Replacement Year	2050		
Remaining Life	34		



Description: Estimated 504 square feet of concrete slabs that are assumed to be ongrade and reinforced.

Condition: The concrete slabs are in good condition.

Action(s):

• Concrete slabs should exceed the life of the reserve study.

Daniela daniela de	2021		
Replace damaged	sections - 2021	344 LF	@ \$18.00
Asset ID	C07.1	Asset Cost	\$6,192.00
	Flatwork	Percent Replacement	100%
	Concrete Crosspans	Future Cost	\$7,178.22
Placed in Service	May 2000		
Useful Life	7		
Adjustment	14		
Replacement Year	2021		

5



Description: Estimated 1,969 square feet of concrete aprons that are assumed to be reinforced and a depth of 8 inches thick.

Condition: Good to fair condition.

Action(s):

Remaining Life

- Cyclically remove and replace damaged sections of the concrete slabs every 7 years, starting in 2021.
- Inspect the surface and repair any cracks or deteriorating concrete cross pans every year. This cost is not included in the Study because normally associations perform this as a maintenance item and the cost is considered an operating expense.

Tuck-point the mortar joints - 2022

Asset ID D01.1 Asset Cost \$3,500.00
Landscaping and Appurtenances Entrance Monuments Future Cost \$4,179.18

Placed in Service May 1982
Useful Life 10
Adjustment 30
Replacement Year 2022
Remaining Life 6



Description: Estimated 735 square feet of CMU walls covered with an estimated 1,575 square feet of brick veneer that frames three rectangular, painted concrete signs with lettering attached.

Condition: Good to fair condition.

- Cyclically tuck-point the mortar joints and replace any damaged or deteriorated bricks every 10 years, starting in 2022.
- Inspect and maintain the concrete signs and lettering every year. This cost is not included in the Study because normally associations perform this as a maintenance item and the cost is considered an operating expense.

Replace timber wa	NIA 2010
RADIACA HITTOPI WA	111 5 - 7111 8

epiace timber wa	diis - 2018	183 LF	@ \$40.00
Asset ID	D02.1	Asset Cost	\$7,320.00
Landscapin	g and Appurtenances	Percent Replacement	100%
Ti	mber Retaining Walls	Future Cost	\$7,765.79
Placed in Service	May 1982		
Useful Life	25		
Adjustment	11		
Replacement Year	2018		
Remaining Life	2		

Description: Estimated 183 linear feet of timber landscape ties, layered to create retaining walls.

Condition: Fair condition. We noted that each of the timber retaining walls is tilting (failing) and deteriorating.

Action(s):

 Cyclically remove and replace the timber retaining walls every 25 years, starting in 2018.

Tuck-point the mortar joints

	1 0 1		
	Asset Cost	D03.1	Asset ID
100%	Percent Replacement	Appurtenances	Landscaping and
	Future Cost	Retaining Walls	Stone
		May 2009	ed in Service

1 IIT

@

Placed in Service May 2009
Useful Life 10
Adjustment 3
Replacement Year 2022
Remaining Life 6



Description: Estimated 157 linear feet of adhered, natural stone veneer, with grouted mortar joints.

Condition: Excellent condition. We were informed that the wall was built in 2009.

Action(s):

• Cyclically tuck-point the mortar joints and replace any damaged or deteriorated stones every 10 years, starting 2022. The cost is not included in the Study because it falls below the minimum fund threshold.

Restack and repair - 2025

Asset ID D04.1 Asset Cost \$10,000.00

Landscaping and Appurtenances Boulder Retaining Walls Future Cost \$13,047.73

Placed in Service May 1990
Useful Life 15
Adjustment 20
Replacement Year 2025
Remaining Life 9



Description: Estimated 2,017 linear feet of stacked boulder retaining walls at a range of 1 to 4 feet in height.

Condition: Good to fair condition.

Action(s):

Cyclically restack a portion of the wall every 15 years, starting in 2025

Tuck-point the mortar joints

@	1 UT	rtar joints	uck-point the mo
	Asset Cost	D05.1	Asset ID
100%	Percent Replacement	and Appurtenances	Landscaping
	Future Cost	ered Retaining Walls	Brick Vene
		May 1996	Placed in Service
		10	Useful Life
		13	Adjustment
		2019	Replacement Year
		3	Remaining Life



Description: Estimated 237 square feet of brick veneered CMU retaining walls.

Condition: Good to fair condition.

Action(s):

Cyclically tuck-point the mortar joints and replace any damaged or deteriorated bricks every 10 years, starting in 2019. The cost is not included in the Study because it falls below the minimum fund threshold.

Scrape, rust proof and	l paint - 2018	321 LF	@ \$7.25
20.4007.00. 0.00. 0.10		JZ I LF	@ \$1.25
Asset ID	D06.1	Asset Cost	\$2,327.25
Landscaping and	d Appurtenances	Percent Replacement	100%
	Handrails	Future Cost	\$2,468.98
Placed in Service	May 2000		
Useful Life	6		
Adjustment	12		
Replacement Year	2018		
Remaining Life	2		



Description: There is a combination of metal and wood handrails supported by metal posts that are fastened to concrete walks or ground packed.

Condition: Good to fair condition.

Action(s):

• Cyclically scrape, rust proof and paint the metal and wood handrails every 6 years, starting in 2018.

Remove and replace - 2025

e and replace - 20	J25	274 LF	@ \$40.00
Asset ID	D06.2	Asset Cost	\$10,960.00
Landscaping and A	ppurtenances	Percent Replacement	100%
	Metal Fencing	Future Cost	\$14,300.31

Placed in Service	May 1995
Useful Life	25
Adjustment	5
Replacement Year	2025
Remaining Life	9



Description: Estimated 274 linear feet of metal fencing spaced between approximately 772 square feet of brick veneered columns.

Condition: Good to fair condition.

Action(s):

• Remove and replace the metal fencing in 2025.

Remove and replace - 2023

Asset ID D07.1 Asset Cost \$10,500.00
Landscaping and Appurtenances Percent Replacement 100%
Chain Link Fencing Future Cost \$12,913.68

Placed in Service May 1995
Useful Life 25
Adjustment 3
Replacement Year 2023
Remaining Life 7



Description: Estimated 350 linear feet of 10-foot high vinyl coated chain link fence.

Condition: Fair condition.

Action(s):

Remove and replace chain link fencing in 2023.

Remove and replace - 2034

Asset ID D08.1 Asset Cost \$95,000.00
Landscaping and Appurtenances Vinyl Fencing Future Cost \$161,731.14

Placed in Service May 2009
Useful Life 25
Replacement Year 2034
Remaining Life 18



Description: Estimated 2,375 linear feet of white vinyl fencing intermittent between 1,056 square feet of brick veneered columns.

Condition: The vinyl fencing is in excellent condition. The brick veneered columns are in good condition.

Action(s):

• Remove and replace the vinyl fencing in 2034.

Prei	n and	paint -	2018
1 1 0	o alia	panit	2010

nd paint - 2018		1,513 LF	@ \$1.00
Asset ID	D09.1	Asset Cost	\$1,513.00
Landscaping and A	ppurtenances	Percent Replacement	100%
V	Vood Fencing	Future Cost	\$1,605.14

Placed in Service May 2015 Useful Life 5 -2 Adjustment Replacement Year 2018 Remaining Life 2



Description: Estimated 1,513 linear feet of 4-foot high, white painted wood patio fencing for the 1st phase townhomes.

Condition: Good condition. We noted that fencing has been painted in the last couple of years.

Action(s):

Cyclically prep and paint the wood fencing associated with the 1st phase townhomes every 5 years, starting in 2018.

Remove and replace - 2020

e and replace - 20	020	1,513 LF	@ \$16.50
Asset ID	D09.2	Asset Cost	\$24,964.50
Landscaping and A	ppurtenances	Percent Replacement	100%
\	Nood Fencing	Future Cost	\$28,097.76

May 1995
15
10
2020
4



Description: Estimated 1,513 linear feet of 4-foot high, white painted wood patio fencing for the 1st phase townhomes.

Condition: Good condition. We noted that fencing has been painted in the last couple of years.

Action(s):

• Cyclically remove and replace the wood fencing associated with the 1st phase townhomes every 15 years, starting in 2020.

Remove and	replace	bridge -	2033
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1 UT @ \$3,000.00 Asset ID D10.1 **Asset Cost** \$3,000.00 Landscaping and Appurtenances 100% Percent Replacement Trex Bridge and Deck **Future Cost** \$4,958.54

Placed in Service May 2008 Useful Life 23 Adjustment 2 Replacement Year 2033 Remaining Life 17



Description: The bridge is built with Trex® floor boards and railing. The decking has an under-structured wood frame with an estimated 390 square feet of Trex® deck boards and Trex® built-in benches.

Condition: The bridge and deck are in good condition.

Action(s):

Remove and replace the Trex® bridge in 2033.

Remove and replace deck - 2033

Asset ID D10.2 Asset Cost \$10,140.00
Landscaping and Appurtenances Percent Replacement 100%
Trex Bridge and Deck Future Cost \$16,759.87

Placed in Service May 2008
Useful Life 25
Replacement Year 2033
Remaining Life 17



Description: The bridge is built with Trex[®] floor boards and railing. The decking has an under-structured wood frame with an estimated 390 square feet of Trex[®] deck boards and Trex[®] built-in benches.

Condition: The bridge and deck are in good condition.

Action(s):

• Remove and replace the Trex® deck in 2033.

Remove and replace - 2025

e and replace - 2	2025	110 UT	@ \$300.00
Asset ID	D11.1	Asset Cost	\$33,000.00
Landscaping and	Appurtenances	Percent Replacement	100%
	Pole Lights	Future Cost	\$43,057.51

Placed in Service	May 1995
Useful Life	25
Adjustment	5
Replacement Year	2025
Remaining Life	9



Description: Estimated 110 pathway pole lights. The lights have a 6-foot tall metal pole with lantern type light housing attached to the top of the pole. The majority of the pole lights are anchored in concrete with several anchored with soil.

Condition: The site observation was performed during the day, so we cannot verify if lights are in good working condition but aesthetically they are in good to fair condition. We noted that several pole lights are tilted.

Action(s):

Remove and replace the pole lights in 2025.

Remove and replace - 2025

Asset ID D12.1 Asset Cost \$13,600.00
Landscaping and Appurtenances Percent Replacement 100%
Mailboxes Future Cost \$17,744.91

Placed in Service May 1990
Useful Life 30
Adjustment 5
Replacement Year 2025
Remaining Life 9



Description: There are six 35-door front loading mailboxes, two 21-door front loading mailboxes, and ten sets of 2-package boxes.

Condition: Fair condition, with some signs of corrosion.

Action(s):

Remove and replace the mailboxes in 2025.

Remove and replace - 2036

@ \$1,100.00	2 UT	2036	e and replace - 2
\$2,200.00	Asset Cost	D13.1	Asset ID
100%	Percent Replacement	Appurtenances	Landscaping and A
\$3,973.44	Future Cost	Benches	. •

Placed in Service	May 2003
Useful Life	30
Adjustment	3
Replacement Year	2036
Remaining Life	20



Description: Two composite picnic tables with powder-coated steel legs.

Condition: Good condition.

Action(s):

Remove and replace the benches in 2036.

Remove and replace - 2016

e and replace - 20	116	1 UT	@ \$5,000.00
Asset ID	D14.1	Asset Cost	\$5,000.00
Landscaping and Ap	opurtenances	Percent Replacement	100%
	Vegetation	Future Cost	\$5,000.00

May 2010
1
5
2016
0



Description: Various species of trees, shrubs, and plants.

Condition: Good condition.

Action(s):

 Cyclically remove and replace diseased or dead trees, shrubs, and plants every year starting in 2016.

Remove and replace components - 2016

		1 UT	@
Asset ID	D15.1	Asset Cost	
Landscaping	and Appurtenances	Percent Replacement	100%
	Irrigation System	Future Cost	
Placed in Service	May 2011		
Useful Life	1		
Adjustment	4		
Replacement Year	2016		
Remaining Life	0		

Description: Irrigation system composed of drip lines and sprinklers.

Condition: Presumed in good condition.

Action(s):

 Cyclically replace damaged irrigation system components every year under annual operating budget starting in 2016 and replace controllers every 12 years starting in 2020.

Remove and replac	e controllers - 2020	1 UT	@ \$2,000.00
Asset ID	D15.2	Asset Cost	\$2,000.00
Landscaping	and Appurtenances	Percent Replacement	100%
	Irrigation System	Future Cost	\$2,251.02
Placed in Service	May 2011		
Useful Life	12		
Adjustment	-3		
Replacement Year	2020		
Remaining Life	4		

Description: Irrigation system composed of drip lines and sprinklers.

Condition: Presumed in good condition.

Action(s):

 Cyclically replace damaged irrigation system components every year starting in 2016 and replace controllers every 12 years starting in 2020.

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I GC	' P	,011	1.	\	122

Asset ID E01.1 Asset Cost \$5,050.00
Landscaping and Appurtenances Percent Replacement 100%
Brick Veneer Future Cost \$6,029.96

Placed in Service May 1995
Useful Life 10
Adjustment 17
Replacement Year 2022
Remaining Life 6



Description: Estimated 20,204 square feet of brick veneer with mortar joints.

Condition: Good condition.

Action(s):

• Cyclically tuck-point the mortar joints and replace any damaged or deteriorated bricks every 10 years, starting in 2022.

Prep and paint phase 1 - 2019

Asset ID E02.1 Asset Cost \$168,042.00
Landscaping and Appurtenances Siding and Trim Future Cost \$183,624.03

Placed in Service May 2013
Useful Life 6
Replacement Year 2019
Remaining Life 3



Description: Estimated total of 194,201 square feet of vertically-orient, channel board siding. The trim around the windows and at corners is installed on the top of the siding boards. Lap siding is installed in the horizontal direction for the Phase 2 patios.

Condition: Good condition.

Action(s):

• Cyclically prep and paint the siding and trim and replace any damaged or deteriorated sections every 6 years by Phase with Phase 1 starting in 2019 and Phase 2 starting in 2021.

Prep and paint phase 2 - 2021

Asset ID E02.2 Asset Cost \$123,259.50
Landscaping and Appurtenances Siding and Trim Future Cost \$142,891.54

Placed in Service May 2015
Useful Life 6
Replacement Year 2021
Remaining Life 5



Description: Estimated total of 194,201 square feet of vertically-orient, channel board siding. The trim around the windows and at corners is installed on the top of the siding boards. Lap siding is installed in the horizontal direction for the Phase 2 patios.

Condition: Good condition.

Action(s):

• Cyclically prep and paint the siding and trim and replace any damaged or deteriorated sections every 6 years by Phase with Phase 1 starting in 2019 and Phase 2 starting in 2021.

Remove and replace - 2030

Asset ID E03.1 Asset Cost \$13,500.00
Landscaping and Appurtenances Windows Future Cost \$20,419.96

Placed in Service May 1982
Useful Life 30
Adjustment 18
Replacement Year 2030
Remaining Life 14



Description: Nine wood framed windows.

Condition: Good to fair condition based on age and efficiency.

Action(s):

Remove and replace the clubhouse windows in 2030.

Remove and replace

Asset ID E04.1 Asset Cost
Landscaping and Appurtenances Percent Replacement 100%
Exterior Lighting Units Future Cost

Placed in Service May 1982
Useful Life 10
Adjustment 30
Replacement Year 2022
Remaining Life 6



Description: Eleven exterior, wall- and ceiling-mounted fixtures composed of glass and metal.

Condition: Good condition.

Action(s):

• Remove and replace the exterior lighting units as needed. This cost is not included in this Study because it is considered an operating expense.

Remove and replace - 2022

Asset ID E05.1 Asset Cost \$4,800.00
Landscaping and Appurtenances Entry Doors Future Cost \$5,731.45

Placed in Service May 1982
Useful Life 40
Replacement Year 2022
Remaining Life 6



Description: Four glass and steel, 6-foot panel doors at the clubhouse entrances.

Condition: Good condition.

Action(s):

• Replace the entry doors in 2022.

Prep and paint phase 1 - 2018

Asset ID E06.1 Asset Cost \$19,080.00
Landscaping and Appurtenances Garage Doors Future Cost \$20,241.97

Placed in Service May 2014
Useful Life 6
Adjustment -2
Replacement Year 2018
Remaining Life 2



Description: 212 panelized metal garage doors.

Condition: The paint is in good condition. We were informed that the Association is only responsible for painting the garage doors.

Action(s):

• Cyclically prep and paint the garage doors every 6 years by Phase with Phase 1 starting in 2018 and Phase 2 starting in 2020.

Prep and paint phase 2 - 2020

Asset ID E06.2 Asset Cost \$19,080.00
Landscaping and Appurtenances Garage Doors Future Cost \$21,474.71

Placed in Service May 2014
Useful Life 6
Replacement Year 2020
Remaining Life 4



Description: 212 panelized metal garage doors.

Condition: The paint is in good condition. We were informed that the Association is only responsible for painting the garage doors.

Action(s):

 Cyclically prep and paint the garage doors every 6 years by Phase with Phase 1 starting in 2018 and Phase 2 starting in 2020.

Remove and replace phase 1 - 2023

Asset ID F01.1 Asset Cost \$469,476.00
Landscaping and Appurtenances Asphalt Shingled Roofs Percent Replacement \$4%

Placed in Service May 1998
Useful Life 25
Replacement Year 2023
Remaining Life 7



Description: Estimated total of 3,586 squares of asphalt shingles over a membrane.

Condition: Good to fair condition.

Action(s):

• Remove and replace the asphalt shingled roofs by Phase with Phase 1 in 2023 and Phase 2 in 2024.

Remove and replace phase 2 - 2024

Asset ID F01.2 Asset Cost \$434,196.00
Landscaping and Appurtenances Asphalt Shingled Roofs Percent Replacement \$450,026.50

Placed in Service May 1998
Useful Life 25
Adjustment 1
Replacement Year 2024
Remaining Life 8



Description: Estimated total of 3,586 squares of asphalt shingles over a membrane.

Condition: Good to fair condition.

Action(s):

 Remove and replace the asphalt shingled roofs by Phase with Phase 1 in 2023 and Phase 2 in 2024.

Remove and replace phase 1 - 2023

Asset ID F02.1
Landscaping and Appurtenances
Gutters, Downspouts, and Extensions
Placed in Service May 1998
Useful Life 25
Replacement Year 2023
Remaining Life 7

6,024 LF @ \$9.00 Asset Cost \$54,216.00 Percent Replacement 100% Future Cost \$66,678.84



Description: Estimated 14,942 linear feet of aluminum gutters, downspouts, and extensions.

Condition: Good to fair condition. We noted some areas where the arrangement of the downspout extensions are displacing landscaping materials and other locations where the current geometry is unsatisfactory for effectively conveying the runoff from the roof.

Action(s):

- Remove and replace gutters, downspouts, and extensions by Phase with Phase 1 in 2023 and Phase 2 in 2024.
- Cyclically prep and paint the gutters, downspouts, and extensions and replace any damaged or deteriorated sections every 6 years, by Phase with Phase 1 starting in 2017 and Phase 2 starting in 2018. These costs are included in the Siding and Trim component of this Study.

Remove and replace phase 2 - 2024

Asset ID F02.2
Landscaping and Appurtenances
Gutters, Downspouts, and Extensions
Placed in Service May 1998
Useful Life 25
Adjustment 1
Replacement Year 2024
Remaining Life 8

8,918 LF @ \$9.00 Asset Cost \$80,262.00 Percent Replacement 100% Future Cost \$101,673.50



Description: Estimated 14,942 linear feet of aluminum gutters, downspouts, and extensions.

Condition: Good to fair condition. We noted some areas where the arrangement of the downspout extensions are displacing landscaping materials and other locations where the current geometry is unsatisfactory for effectively conveying the runoff from the roof.

Action(s):

- Remove and replace gutters, downspouts, and extensions by Phase with Phase 1 in 2023 and Phase 2 in 2024.
- Cyclically prep and paint the gutters, downspouts, and extensions and replace any damaged or deteriorated sections every 6 years, by Phase with Phase 1 starting in 2017 and Phase 2 starting in 2018. These costs are included in the Siding and Trim component of this Study.

Remove and rep	olace - 2020	
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terriove ariu repiace :	= 2020	1 UT	@ \$2,000.00
Asset ID	G01.1	Asset Cost	\$2,000.00
	Interior	Percent Replacement	100%
	Furniture	Future Cost	\$2,251.02
Placed in Service	May 2000		
Useful Life	5		
Adjustment	15		
Replacement Year	2020		
Remaining Life	4		



Description: There are four cushioned chairs, one corner couch, and one table with four matching chairs, two end tables, three lamps, and five pieces of wall art.

Condition: Fair condition based on aesthetic appearance.

Action(s):

• Cyclically replace a portion of the furniture every 5 years, starting in 2020.

Prep and paint - 2021

Asset ID G02.1 Asset Cost \$2,433.50
Interior Percent Replacement 100%
Interior Walls/Ceilings Future Cost \$2,821.09

Placed in Service May 1995
Useful Life 7
Adjustment 19
Replacement Year 2021
Remaining Life 5



Description: Estimated 4,867 square feet of painted drywall walls and ceilings.

Condition: Good condition.

Action(s):

• Cyclically prep and paint the walls and ceilings every 7 years, starting in 2021.

Remove and replace	e carpet - 2020	1,311 SF	@ \$4.50
Asset ID	G03.2	Asset Cost	\$5,899.50
	Interior	Percent Replacement	100%
	Interior Flooring	Future Cost	\$6,639.94
Placed in Service	May 2000		
Useful Life	10		
Adjustment	10		
Replacement Year	2020		
Remaining Life	4		



Description: The majority of the flooring for the interior common areas is finished with commercial grade carpet, estimated at 1,311 square feet. The upper level bathrooms and kitchen is finished with brick tile flooring, estimated at 264 square feet.

Condition: Fair condition based on aesthetic appearance. We noted significant wear associated with the lower level carpeting.

Action(s):

• Cyclically replace the carpeting every 10 years, starting in 2020.

Remove	and	repl	lace	tile -	2025

Remove and replac	e tile - 2025	264 SF	@ \$6.00
Asset ID	G03.1	Asset Cost	\$1,584.00
	Interior	Percent Replacement	100%
	Interior Flooring	Future Cost	\$2,066.76
Placed in Service	May 1982		
Useful Life	30		
Adjustment	13		
Replacement Year	2025		
Remaining Life	9		



Description: The majority of the flooring for the interior common areas is finished with commercial grade carpet, estimated at 1,311 square feet. The upper level bathrooms and kitchen is finished with brick tile flooring, estimated at 264 square feet.

Condition: Fair condition based on aesthetic appearance. We noted significant wear associated with the lower level carpeting.

Action(s):

• Remove and replace the tile flooring in 2025.

Refurbish lower level - 2021

retat bisti towet teve	1 - 2021	2 01	@ \$4,000.00
Asset ID	G04.1	Asset Cost	\$8,000.00
	Interior	Percent Replacement	100%
	Restrooms	Future Cost	\$9,274.19
Placed in Service	May 1982		
Useful Life	12		
Adjustment	27		
Replacement Year	2021		
Remaining Life	5		



Description: The two upper level restrooms each have a toilet, sink, brick tile flooring, countertop, and mirror. The two lower level restrooms each have a toilet, sink, concrete flooring, ceramic tile walls, shower, countertop, and mirror.

Condition: Fair condition.

Action(s):

• Cyclically refurbish the restroom every 12 years by level with the lower level starting in 2021 and upper lever starting in 2022.

Refurbish upper level - 2022

Refurbish upper level	- 2022	2 UT	@ \$2,000.00
Asset ID	G04.2	Asset Cost	\$4,000.00
	Interior	Percent Replacement	100%
	Restrooms	Future Cost	\$4,776.21
Placed in Service	May 1982		
Useful Life	12		
Adjustment	28		
Replacement Year	2022		
Remaining Life	6		



Description: The two upper level restrooms each have a toilet, sink, brick tile flooring, countertop, and mirror. The two lower level restrooms each have a toilet, sink, concrete flooring, ceramic tile walls, shower, countertop, and mirror.

Condition: Fair condition.

Action(s):

Cyclically refurbish the restroom every 12 years by level with the lower level starting in 2021 and upper lever starting in 2022.

Refurbish - 2020		1 UT	@ \$7,500.00
Asset ID	G05.1	Asset Cost	\$7,500.00
	Interior	Percent Replacement	100%
	Kitchen	Future Cost	\$8,441.32
Placed in Service	May 1982		
Useful Life	20		
Adjustment	18		
Replacement Year	2020		
Remaining Life	4		



Description: There is a microwave, full size refrigerator, electric stove, cabinets, sink, and countertops.

Condition: Fair condition.

Action(s):

• Cyclically refurbish the kitchen every 20 years, starting in 2020.

Remove and replace

Asset ID G06.1 Asset Cost
Interior Percent Replacement 100%
Wood Building Features Future Cost

n Service May 1982

Placed in Service May 1982
Useful Life 8
Adjustment 31
Replacement Year 2021
Remaining Life 5



Description: Estimated 35 linear feet of wood guardrails and handrails associated with the stairs and ledge.

Condition: Good condition.

Action(s):

• Cyclically stain the wood elements every 8 years, starting in 2021. This cost is not included in this Study because the cost associated with the action item is below the minimum threshold of this Study.

Remove and replace		1 UT	@
Asset ID	G07.1	Asset Cost	
	Interior	Percent Replacement	100%
	Interior Doors	Future Cost	
Placed in Service	May 1982		
Useful Life	10		
Adjustment	29		
Replacement Year	2021		
Remaining Life	5		



Description: 13 wooden solid and hollow doors.

Condition: Good to fair condition.

Action(s):

 Stain interior doors every 10 years starting in 2021 as part of the annual maintenance budget.

terriove ariu repiace	; - 2022	200 LF	@ \$30.78
Asset ID	H01.1	Asset Cost	\$6,156.00
	Amenities	Percent Replacement	100%
	Swimming Pool	Future Cost	\$7,350.59
Placed in Service	May 1995		
Useful Life	10		
Adjustment	17		
Replacement Year	2022		
Remaining Life	6		



Description: Estimated 3,188 square feet of swimming pool surface. The swimming pool is finished with a cementitious plaster basin. The pool coping appears to be colored and stamped concrete product integral with the pool deck.

Condition: The pool surface is in good to fair condition.

Action(s):

• Cyclically replace the coping stones every 10 years, starting in 2022.

Resurface - 2017		3,188 SF	@ \$10.00
Asset ID	H01.2	Asset Cost	\$31,880.00
	Amenities	Percent Replacement	100%
	Swimming Pool	Future Cost	\$32,836.40
Placed in Service	May 1995		
Useful Life	10		
Adjustment	12		
Replacement Year	2017		
Remaining Life	1		



Description: Estimated 3,188 square feet of swimming pool surface. The swimming pool is finished with a cementitious plaster basin. The pool coping appears to be colored and stamped concrete product integral with the pool deck.

Condition: The pool surface is in good to fair condition.

Action(s):

• Cyclically resurface the swimming pool every 10 years, starting in 2017.

Remove and replace -	2016	12,980 SF	@ \$0.60
Asset ID	H03.1	Asset Cost	\$7,788.00
	Amenities	Percent Replacement	100%
	Tennis Court	Future Cost	\$7,788.00
Placed in Service	May 1990		
Useful Life	7		
Adjustment	19		
Replacement Year	2016		
Remaining Life	0		



Description: Hard court surface tennis court.

Condition: Poor condition with cracking and spalling noted.

Action(s):

- Cyclically inspect, repair, and resurface every 7 years, starting in 2016.
- Cyclically inspect and repair cracks every year. This cost is not included in the Study because normally associations perform this as a maintenance item and the cost is considered an operating expense.

Remove and replace - 2025

Asset ID H04.1 Asset Cost \$5,000.00
Landscaping and Appurtenances Gazebo Future Cost \$6,523.87

Placed in Service May 2000
Useful Life 25
Replacement Year 2025
Remaining Life 9



Description: Asphalt shingled roof structure with wood trim and fascia supported by four wood posts. The interior of the gazebo area contains built-in wooden benches.

Condition: Good condition.

Action(s):

- Remove and replace the asphalt shingled roof in 2025.
- Cyclically inspect and repair damaged or deteriorated wood components associated
 with the gazebo every year. This cost is not included in the Study because normally
 associations perform this as a maintenance item and the cost is considered an
 operating expense.

Remove and replace - 2044

ciliove and replace	2044	1 01	@ \$16,000.00
Asset ID	I01.1	Asset Cost	\$16,000.00
	Mechanical	Percent Replacement	100%
	Boilers	Future Cost	\$36,606.84
Placed in Service	May 2014		
Useful Life	30		
Replacement Year	2044		
Remaining Life	28		



Description: Model WH-970, Parker Boiler Company gas fired boiler assembly.

Condition: Good condition

Action(s):

• Remove and replace the boiler in 2044.

Remove and replace - 2030

Remove and replace	e - 2030	1 UT	@ \$5,000.00
Asset ID	102.1	Asset Cost	\$5,000.00
	Mechanical	Percent Replacement	100%
	Furnace	Future Cost	\$7,562.95
Placed in Service	May 2005		
Useful Life	25		
Replacement Year	2030		
Remaining Life	14		



Description: Model 58PAV111-16, Carrier forced air natural gas furnace. The unit has an input rating of 110,000 BTU/hr. output rating of 89,000 BTU/hr., and maximum outlet temperature of 185°F.

Condition: We were informed that this unit is in good working condition.

Action(s):

• Remove and replace the furnace in 2030.

Remove and replace - 2020

Replacement Year

Remaining Life

Remove and replace	- 2020	1 UT	@ \$2,500.00
Asset ID	103.1	Asset Cost	\$2,500.00
	Mechanical	Percent Replacement	100%
	Air Conditioner	Future Cost	\$2,813.77
Placed in Service	May 2000		
Useful Life	20		

2020



Description: Model 38CKC, Carrier Weather Mate Series air conditioner. The air conditioner has a seasonal energy efficiency ratio of 11.5.

Condition: We were informed that this unit is in good working condition.

Action(s):

• Cyclically remove and replace the air conditioner unit every 20 years, starting in 2020.

Remove and replace - 2023

Remaining Life

Remove and replace	e - 2023	1 UT	@ \$1,500.00
Asset ID	104.1	Asset Cost	\$1,500.00
	Mechanical	Percent Replacement	100%
	Circulation Pump	Future Cost	\$1,844.81
Placed in Service	May 2002		
Useful Life	10		
Adjustment	11		
Replacement Year	2023		



7

Description: Pentair Pool Products, 5 horsepower Challenger circulation pump.

Condition: We were informed that this unit is in good working condition.

Action(s):

• Cyclically replace the circulation pump every 10 years, starting in 2023.

Remove and replace - 2018

emove and replac	e - 2018	1 UT	@ \$2,500.00
Asset ID	105.1	Asset Cost	\$2,500.00
	Mechanical	Percent Replacement	100%
	Water Heater	Future Cost	\$2,652.25
Placed in Service	May 1998		
Useful Life	15		
Adjustment	5		
Replacement Year	2018		
Remaining Life	2		



Description: Model PR640, State Select automatic storage water heater. The water heater has a 40 gallon capacity with an input rating of 40,000 BTU/hr.

Condition: We were informed this water heater is in good condition.

Action(s):

Cyclically replace the water heater every 15 years, starting in 2018.

kemove and replace	- 2020	1 UT	@ \$3,500.00
Asset ID	106.1	Asset Cost	\$3,500.00
	Mechanical	Percent Replacement	100%
	Pool Filter	Future Cost	\$3,939.28
Placed in Service	May 1995		
Useful Life	30		
Adjustment	-5		
Replacement Year	2020		
Remaining Life	4		



Description: Model HRL-48, Swimquip sand filter. The filter has filtration area of 12.6 square feet and a design flow capacity of 15 to 20 gallons per minute.

Condition: Fair to poor condition based on age.

Action(s):

• Remove the sand filter and replace with a cartridge filtration system in 2020.

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Description										
Building Grading and Drainage			0.400						0.000	
Regrade earthen areas Building Grading and Drainage Total:			3,183 3,183						3,800 3,800	
			3,103						3,000	
Site Grading and Drainage Regrade grass swales			3,183							
Site Grading and Drainage Total:			3,183							
Driveways			,							
Crackfill		3,090	3,183	3,278	3,377	3,478	3,582	3,690	3,800	3,914
Mill and overlay		·	•	·	·	·	·	·	•	176,101
Mill and overlay		3,296				3,710				4 17E
Provide full depth patches Seal coat		34,754				3,710	40,289			4,175
Driveways Total:		41,140	3,183	3,278	3,377	7,187	43,872	3,690	3,800	184,191
Concrete Walkways										
Replace damaged sections					4,052					
Concrete Walkways Total:					4,052					
Concrete Stairs										
Replace damaged sections							5,970			
Concrete Stairs Total:							5,970			
Concrete Pool Deck		0.744						10 105		
Replace damaged sections Concrete Pool Deck Total:		8,714 8,714						10,405 10,405		
		0,714						10,403		
Concrete Pan Replace damaged sections					4,727					5,480
Concrete Pan Total:					4,727					5,480
Curb and Gutter					·					·
Replace damaged sections	5,250						6,269			
Curb and Gutter Total:	5,250						6,269			

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Description										
Concrete Slabs										
None	Unfunded									
Concrete Crosspans										
Replace damaged sections						7,178				
Concrete Crosspans Total:						7,178				
Entrance Monuments										
Tuck-point the mortar joints							4,179			
Entrance Monuments Total:							4,179			
Timber Retaining Walls										
Replace timber walls			7,766							
Timber Retaining Walls Total:			7,766							
Stone Retaining Walls										
Tuck-point the mortar joints	Unfunded									
Boulder Retaining Walls										
Restack and repair										13,048
Boulder Retaining Walls Total:										13,048
Brick Veneered Retaining Walls										
Tuck-point the mortar joints	Unfunded									
Handrails										
Scrape, rust proof and paint			2,469						2,948	
Handrails Total:			2,469						2,948	
Metal Fencing										
Remove and replace										14,300
Metal Fencing Total:										14,300
Chain Link Fencing										
Remove and replace								12,914		
Chain Link Fencing Total:								12,914		

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Description										
Vinyl Fencing Remove and replace										
Vinyl Fencing Total:										
Wood Fencing										
Prep and paint			1,605		00.000			1,861		
Remove and replace Wood Fencing Total:			1,605		28,098 28,098			1,861		
_			1,000		20,070			1,001		
Trex Bridge and Deck Remove and replace bridge										
Remove and replace deck										
Trex Bridge and Deck Total:										
Pole Lights										
Remove and replace Pole Lights Total:										43,058 43,058
Mailboxes										10,000
Remove and replace										17,745
Mailboxes Total:										17,745
Benches										
Remove and replace										
Vegetation										
Remove and replace	5,000	5,150	5,304	5,464	5,628	5,796	5,970	6,149	6,334	6,524
Vegetation Total:	5,000	5,150	5,304	5,464	5,628	5,796	5,970	6,149	6,334	6,524
Irrigation System Remove and replace components										
Remove and replace controllers					2,251					
Irrigation System Total:					2,251					

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Description Brick Veneer										
Tuck-point							6,030			
Brick Veneer Total:							6,030			
Siding and Trim										
Prep and paint phase 1				183,624						219,257
Prep and paint phase 2						142,892				
Siding and Trim Total:				183,624		142,892				219,257
Windows										
Remove and replace										
Windows Total:										
Exterior Lighting Units										
Remove and replace	Unfunded									
Entry Doors										
Remove and replace							5,731			
Entry Doors Total:							5,731			
Garage Doors										
Prep and paint phase 1			20,242						24,170	
Prep and paint phase 2					21,475					
Garage Doors Total:			20,242		21,475				24,170	
Asphalt Shingled Roofs										
Remove and replace phase 1								577,396		
Remove and replace phase 2 Asphalt Shingled Roofs Total:								577,396	550,027 550,027	
								311 ₁ 370	330,027	
Gutters, Downspouts, and Extensions								// /70		
Remove and replace phase 1 Remove and replace phase 2								66,679	101,673	
Gutters, Downspouts, and Extensions To	otal:							66,679	•	

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Description Furniture										
Remove and replace					2,251					2,610
Furniture Total:					2,251					2,610
Interior Walls/Ceilings										
Prep and paint						2,821				
Interior Walls/Ceilings Total:						2,821				
Interior Flooring										
Remove and replace carpet					6,640					
Remove and replace tile										2,067
Interior Flooring Total:					6,640					2,067
Restrooms										
Refurbish lower level						9,274				
Refurbish upper level							4,776			
Restrooms Total:						9,274	4,776			
Kitchen										
Refurbish					8,441					
Kitchen Total:					8,441					
Wood Building Features										
Remove and replace	Unfunded									
Interior Doors										
Remove and replace	Unfunded									
Swimming Pool										
Remove and replace							7,351			
Resurface		32,836								
Swimming Pool Total:		32,836					7,351			
Tennis Court										
Remove and replace	7,788							9,578		
Tennis Court Total:	7,788							9,578		

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Description Gazebo										
Remove and replace										6,524
Gazebo Total:										6,524
Boilers										
Remove and replace										
Furnace										
Remove and replace										
Furnace Total:										
Air Conditioner										
Remove and replace					2,814					
Air Conditioner Total:					2,814					
Circulation Pump										
Remove and replace								1,845		
Circulation Pump Total:								1,845		
Water Heater										
Remove and replace			2,652							
Water Heater Total:			2,652							
Pool Filter										
Remove and replace					3,939					
Pool Filter Total:					3,939					
Year Total:	18,038	87,840	49,587	192,366	93,692	175,149	90,148	690,516	692,753	514,802

Description Building Grading and Drainage Regrade earthen areas 4,538 Site Grading and Drainage Total: 3,4538 Site Grading and Drainage Total: 4,032 Site Grading and Drainage Total: 5,107 Site Grading and Drainage Total: 4,032 Site Grading and Drainage Total: 4,032 Site Grading and Drainage Total: 4,032 Site Grading and Drainage Total: 5,107 Site Grading and Drainage Total: 4,032 Site Grading and Drainage Total: 5,107 Site Grading and Drainage Tota
Regrade earthen areas Building Grading and Drainage Total: Site Grading and Drainage Regrade grass swales Regrade
Building Grading and Drainage Total: Site Grading and Drainage Regrade grass swales 4,032 5,107 Site Grading and Drainage Total: 4,032 5,107 Driveways Crackfill 4,032 4,153 4,277 4,406 4,538 4,674 4,814 4,959 5,107 5,261 Mill and overlay Mill and overlay Mill and overlay Provide full depth patches Seal coat 46,706 Driveways Total: 185,416 50,859 4,277 9,105 4,538 4,674 58,960 10,248 5,107 5,261 Concrete Walkways Replace damaged sections 4,838 5,777 Concrete Walkways Total: 4,838 5,777 Concrete Stairs
Site Grading and Drainage Regrade grass swales 4,032 5,107
Regrade grass swales 4,032 5,107 Site Grading and Drainage Total: 4,032 5,107 Driveways Crackfill 4,032 4,153 4,277 4,406 4,538 4,674 4,814 4,959 5,107 5,261 Mill and overlay Mill and overlay 181,384 Frovide full depth patches 4,699 5,289 Seal coat Driveways Total: 185,416 50,859 4,277 9,105 4,538 4,674 58,960 10,248 5,107 5,261 Concrete Walkways Replace damaged sections 4,838 5,777 Concrete Stairs 4,838 5,777
Site Grading and Drainage Total: 4,032 4,032 4,153 4,277 4,406 4,538 4,674 4,814 4,959 5,107 5,261
Driveways Crackfill 4,032 4,153 4,277 4,406 4,538 4,674 4,814 4,959 5,107 5,261 Mill and overlay 181,384 4,699 5,289 Seal coat 46,706 54,146 Driveways Total: 185,416 50,859 4,277 9,105 4,538 4,674 58,960 10,248 5,107 5,261 Concrete Walkways 4,838 5,777<
Crackfill 4,032 4,153 4,277 4,406 4,538 4,674 4,814 4,959 5,107 5,261 Mill and overlay 181,384 4,699 5,289 5,289 5,289 5,289 5,289 5,289 5,289 5,289 5,289 5,107 5,261 54,146 50,859 4,277 9,105 4,538 4,674 58,960 10,248 5,107 5,261 Concrete Walkways Replace damaged sections 4,838 5,777 5,777 5,777 Concrete Stairs 4,838 5,777 5,777 5,777 5,777
Mill and overlay Mill and overlay 181,384 Provide full depth patches 4,699 5,289 Seal coat 46,706 54,146 Driveways Total: 185,416 50,859 4,277 9,105 4,538 4,674 58,960 10,248 5,107 5,261 Concrete Walkways Replace damaged sections 4,838 5,777 Concrete Walkways Total: 4,838 5,777 Concrete Stairs
Provide full depth patches 4,699 5,289 Seal coat 46,706 54,146 Driveways Total: 185,416 50,859 4,277 9,105 4,538 4,674 58,960 10,248 5,107 5,261 Concrete Walkways 4,838 5,777 5,
Seal coat 46,706 54,146 Driveways Total: 185,416 50,859 4,277 9,105 4,538 4,674 58,960 10,248 5,107 5,261 Concrete Walkways Replace damaged sections 4,838 5,777 Concrete Walkways Total: 4,838 5,777 Concrete Stairs
Driveways Total: 185,416 50,859 4,277 9,105 4,538 4,674 58,960 10,248 5,107 5,261 Concrete Walkways 4,838 5,777 <t< td=""></t<>
Concrete Walkways Replace damaged sections 4,838 5,777 Concrete Walkways Total: 4,838 5,777 Concrete Stairs
Replace damaged sections4,8385,777Concrete Walkways Total:4,8385,777Concrete Stairs5,777
Concrete Stairs
Replace damaged sections 8,024
Concrete Stairs Total: 8,024
Concrete Pool Deck
Replace damaged sections 12,424 14,835
Concrete Pool Deck Total: 12,424 14,835
Concrete Pan
Replace damaged sections 6,353 7,365
Concrete Pan Total: 6,353 7,365
Curb and Gutter
Replace damaged sections7,4858,938Curb and Gutter Total:7,4858,938

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Description										
Concrete Slabs	I I a Constant									
None	Unfunded									
Concrete Crosspans										
Replace damaged sections			8,828							10,858
Concrete Crosspans Total:			8,828							10,858
Entrance Monuments										
Tuck-point the mortar joints Entrance Monuments Total:							5,616			
							5,616			
Timber Retaining Walls										
Replace timber walls Timber Retaining Walls Total:										
•										
Stone Retaining Walls	l line on all al									
Tuck-point the mortar joints	Unfunded									
Boulder Retaining Walls										
Restack and repair Boulder Retaining Walls Total:										
_										
Brick Veneered Retaining Walls Tuck-point the mortar joints	Unfunded									
	Uniunaea									
Handrails					2.500					
Scrape, rust proof and paint Handrails Total:					3,520 3,520					
					3,320					
Metal Fencing Remove and replace										
Metal Fencing Total:										
_										
Chain Link Fencing Remove and replace										
Chain Link Fencing Total:										

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Description										
Vinyl Fencing									4/4 704	
Remove and replace Vinyl Fencing Total:									161,731 161,731	
									101,731	
Wood Fencing Prep and paint			2,157					2,501		
Remove and replace			2,137					2,501		43,775
Wood Fencing Total:			2,157					2,501		43,775
Trex Bridge and Deck										
Remove and replace bridge								4,959		
Remove and replace deck								16,760		
Trex Bridge and Deck Total:								21,718		
Pole Lights										
Remove and replace										
Pole Lights Total:										
Mailboxes										
Remove and replace Mailboxes Total:										
Benches Remove and replace										
Vegetation	4 720	6,921	7,129	7 242	7 542	7 700	0.024	8,264	0.510	8,768
Remove and replace Vegetation Total:	6,720 6,720	6,921	7,129	7,343 7,343	7,563 7,563	7,790 7,790	8,024 8,024	8,264	8,512 8,512	8,768
_	5,7.20	0,7=:	.,,	.,0.3	,,000	.,. , 3	0,021	0,201	J,J . L	27. 22
Irrigation System Remove and replace components										
Remove and replace components Remove and replace controllers							3,209			
Irrigation System Total:							3,209			

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Description Brick Veneer										
Tuck-point							8,104			
Brick Veneer Total:							8,104			
Siding and Trim										
Prep and paint phase 1						261,804				
Prep and paint phase 2		170,620						203,729		
Siding and Trim Total:		170,620				261,804		203,729		
Windows										
Remove and replace					20,420					
Windows Total:					20,420					
Exterior Lighting Units										
Remove and replace	Unfunded									
Entry Doors										
Remove and replace										
Entry Doors Total:										
Garage Doors										
Prep and paint phase 1					28,860					
Prep and paint phase 2	25,642						30,618			
Garage Doors Total:	25,642				28,860		30,618			
Asphalt Shingled Roofs										
Remove and replace phase 1										
Remove and replace phase 2										
Asphalt Shingled Roofs Total:										
Gutters, Downspouts, and Extensi	ions									
Remove and replace phase 1										
Remove and replace phase 2										
Gutters, Downspouts, and Extension	ns Total:									

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Description Furniture										
Remove and replace					3,025					3,507
Furniture Total:					3,025					3,507
Interior Walls/Ceilings										
Prep and paint			3,470							4,267
Interior Walls/Ceilings Total:			3,470							4,267
Interior Flooring										
Remove and replace carpet Remove and replace tile					8,924					
Interior Flooring Total:					8,924					
Restrooms										
Refurbish lower level								13,223		
Refurbish upper level									6,810	
Restrooms Total:								13,223	6,810	
Kitchen										
Refurbish										
Kitchen Total:										
Wood Building Features										
Remove and replace	Unfunded									
Interior Doors										
Remove and replace	Unfunded									
Swimming Pool										
Remove and replace							9,879			
Resurface		44,129					<u>, </u>			
Swimming Pool Total:		44,129					9,879			
Tennis Court										
Remove and replace					11,780					
Tennis Court Total:					11,780					

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Description										
Gazebo										
Remove and replace										
Gazebo Total:										
Boilers										
Remove and replace										
Furnace										
Remove and replace					7,563					
Furnace Total:					7,563					
Air Conditioner										
Remove and replace										
Air Conditioner Total:										
Circulation Pump										
Remove and replace								2,479		
Circulation Pump Total:								2,479		
Water Heater										
Remove and replace								4,132		
Water Heater Total:								4,132		
Pool Filter										
Remove and replace										
Pool Filter Total:										
Year Total:	226,647	272,530	33,346	28,871	107,083	274,268	138,210	266,294	196,205	98,635

Description	Expenditures
Replacement Year 2016	
Curb and Gutter	
Replace damaged sections	5,250
Vegetation	
Remove and replace	5,000
Irrigation System	
Remove and replace components	
Tennis Court	
Remove and replace	7,788
Total for 2016	\$ 18,038
Replacement Year 2017	
Driveways	
Crackfill	3,090
Provide full depth patches	3,296
Seal coat	34,754
Concrete Pool Deck	
Replace damaged sections	8,714
Vegetation	
Remove and replace	5,150
Irrigation System	
Remove and replace components	
Swimming Pool	
Resurface	32,836
Total for 2017	\$87,840
Replacement Year 2018	
Building Grading and Drainage	
Regrade earthen areas	3,183
Site Grading and Drainage	,
Regrade grass swales	3,183
Driveways	•
Crackfill	3,183
Timber Retaining Walls	
Replace timber walls	7,766

Description	Expenditures
Replacement Year 2018 continued	
Handrails	
Scrape, rust proof and paint	2,469
Wood Fencing	
Prep and paint	1,605
Vegetation	
Remove and replace	5,304
Irrigation System	
Remove and replace components	
Garage Doors Prep and paint phase 1	20,242
Water Heater	20,242
Remove and replace	2,652
Total for 2018	\$49,587
10tal 101 2016	\$47,30 <i>1</i>
Replacement Year 2019	
Driveways	
Crackfill	3,278
Vegetation	
Remove and replace	5,464
Irrigation System	
Remove and replace components	
Siding and Trim	100 (04
Prep and paint phase 1	183,624
Total for 2019	\$192,366
Replacement Year 2020	
Driveways	
Crackfill	3,377
Concrete Walkways	
Replace damaged sections	4,052
Concrete Pan	
Replace damaged sections	4,727
Wood Fencing	
Remove and replace	28,098

Description	Expenditures
Replacement Year 2020 continued	
Vegetation	
Remove and replace	5,628
Irrigation System	
Remove and replace components	
Remove and replace controllers	2,251
Garage Doors	
Prep and paint phase 2	21,475
Furniture	
Remove and replace	2,251
Interior Flooring	
Remove and replace carpet	6,640
Kitchen	
Refurbish	8,441
Air Conditioner	
Remove and replace	2,814
Pool Filter	
Remove and replace	3,939
Total for 2020	\$93,692
Replacement Year 2021	
Driveways	
Crackfill	3,478
Provide full depth patches	3,710
Concrete Crosspans	
Replace damaged sections	7,178
Vegetation	
Remove and replace	5,796
Irrigation System	
Remove and replace components	
Siding and Trim	
Prep and paint phase 2	142,892
Interior Walls/Ceilings	
Prep and paint	2,821
Restrooms	2.27
Refurbish lower level	9,274
Total for 2021	\$175,149

Description	Expenditures
Replacement Year 2022	
Driveways	
Crackfill	3,582
Seal coat	40,289
Concrete Stairs	
Replace damaged sections	5,970
Curb and Gutter	
Replace damaged sections	6,269
Entrance Monuments	
Tuck-point the mortar joints	4,179
Vegetation	
Remove and replace	5,970
Irrigation System	
Remove and replace components	
Brick Veneer	
Tuck-point	6,030
Entry Doors	
Remove and replace	5,731
Restrooms	
Refurbish upper level	4,776
Swimming Pool	
Remove and replace	7,351
Total for 2022	\$90,148
Replacement Year 2023	
Driveways	
Crackfill	3,690
Concrete Pool Deck	40.40=
Replace damaged sections	10,405
Chain Link Fencing	
Remove and replace	12,914
Wood Fencing	4.074
Prep and paint	1,861
Vegetation	
Remove and replace	6,149

Description	Expenditures
Replacement Year 2023 continued	
Irrigation System	
Remove and replace components	
Asphalt Shingled Roofs	
Remove and replace phase 1	577,396
Gutters, Downspouts, and Extensions	
Remove and replace phase 1	66,679
Tennis Court	
Remove and replace	9,578
Circulation Pump	
Remove and replace	1,845
Total for 2023	\$690,516
Replacement Year 2024	
Building Grading and Drainage	
Regrade earthen areas	3,800
Driveways	
Crackfill	3,800
Handrails	
Scrape, rust proof and paint	2,948
Vegetation	
Remove and replace	6,334
Irrigation System Remove and replace components	
Garage Doors	
Prep and paint phase 1	24,170
Asphalt Shingled Roofs	
Remove and replace phase 2	550,027
Gutters, Downspouts, and Extensions	
Remove and replace phase 2	101,673
Total for 2024	\$692,753
Replacement Year 2025	
Driveways	
Crackfill	3,914

Description	Expenditures
Replacement Year 2025 continued Mill and overlay Provide full depth patches	176,101 4,175
Concrete Pan Replace damaged sections	5,480
Boulder Retaining Walls Restack and repair	13,048
Metal Fencing Remove and replace	14,300
Pole Lights Remove and replace	43,058
Mailboxes Remove and replace	17,745
Vegetation Remove and replace	6,524
Irrigation System Remove and replace components	
Siding and Trim Prep and paint phase 1	219,257
Furniture Remove and replace	2,610
Interior Flooring Remove and replace tile	2,067
Gazebo Remove and replace	6,524
Total for 2025	\$514,80 <u>2</u>
Replacement Year 2026	
Site Grading and Drainage Regrade grass swales	4,032
Driveways Crackfill Mill and overlay	4,032 181,384
Concrete Walkways Replace damaged sections	4,838

Description	Expenditures
Replacement Year 2026 continued	
Vegetation	
Remove and replace	6,720
Irrigation System	
Remove and replace components	
Garage Doors	
Prep and paint phase 2	25,642
Total for 2026	\$226,647
Replacement Year 2027	
Driveways	
Crackfill	4,153
Seal coat	46,706
Vegetation	4 001
Remove and replace	6,921
Irrigation System Remove and replace components	
Siding and Trim	
Prep and paint phase 2	170,620
Swimming Pool	
Resurface	44,129
Total for 2027	\$272,530
Replacement Year 2028	
Driveways	
Crackfill	4,277
Curb and Gutter	
Replace damaged sections	7,485
Concrete Crosspans	
Replace damaged sections	8,828
Wood Fencing	0.457
Prep and paint	2,157
Vegetation Pomovo and roplace	7 120
Remove and replace	7,129
Irrigation System Remove and replace components	
Nomove and replace components	

Description	Expenditures
Replacement Year 2028 continued	
Interior Walls/Ceilings	
Prep and paint	3,470
Total for 2028	\$33,346
Replacement Year 2029	
Driveways	
Crackfill	4,406
Provide full depth patches	4,699
Concrete Pool Deck	10.101
Replace damaged sections	12,424
Vegetation	7.040
Remove and replace	7,343
Irrigation System	
Remove and replace components	
Total for 2029	\$28,871
Replacement Year 2030	
Building Grading and Drainage	
Regrade earthen areas	4,538
Driveways	
Crackfill	4,538
Concrete Pan	
Replace damaged sections	6,353
Handrails	
Scrape, rust proof and paint	3,520
Vegetation	
Remove and replace	7,563
Irrigation System	
Remove and replace components	
Windows	20, 420
Remove and replace	20,420
Garage Doors Prop and point phase 1	20.070
Prep and paint phase 1	28,860
Furniture Pomovo and replace	2 025
Remove and replace	3,025

Description	Expenditures
Replacement Year 2030 continued	
Interior Flooring	
Remove and replace carpet	8,924
Tennis Court	
Remove and replace	11,780
Furnace	
Remove and replace	7,563
Total for 2030	\$107,083
Replacement Year 2031	
Driveways	
Crackfill	4,674
Vegetation	
Remove and replace	7,790
Irrigation System	
Remove and replace components	
Siding and Trim	2/1 004
Prep and paint phase 1	261,804
Total for 2031	\$274,268
Replacement Year 2032	
Driveways	
Crackfill	4,814
Seal coat	54,146
Concrete Walkways	
Replace damaged sections	5,777
Concrete Stairs	
Replace damaged sections	8,024
Entrance Monuments	
Tuck-point the mortar joints	5,616
Vegetation	2.22
Remove and replace	8,024
Irrigation System	
Remove and replace components	3,209
Remove and replace controllers	3,209

Description	Expenditures
Replacement Year 2032 continued	
Brick Veneer	
Tuck-point	8,104
Garage Doors	
Prep and paint phase 2	30,618
Swimming Pool	
Remove and replace	9,879
Total for 2032	\$138,210
Replacement Year 2033	
Driveways	
Crackfill	4,959
Provide full depth patches	5,289
Wood Fencing	
Prep and paint	2,501
Trex Bridge and Deck	4.050
Remove and replace bridge	4,959
Remove and replace deck	16,760
Vegetation Demove and replace	0 241
Remove and replace	8,264
Irrigation System Pomovo and replace components	
Remove and replace components	
Siding and Trim Prep and paint phase 2	203,729
Restrooms	203,727
Refurbish lower level	13,223
Circulation Pump	10,220
Remove and replace	2,479
Water Heater	2,177
Remove and replace	4,132
Total for 2033	\$266,294
10(4) 101 2000	Ψ200,274
Replacement Year 2034	
Site Grading and Drainage	
Regrade grass swales	5,107

Description	Expenditures
Replacement Year 2034 continued	
Driveways	
Crackfill	5,107
Curb and Gutter	
Replace damaged sections	8,938
Vinyl Fencing	
Remove and replace	161,731
Vegetation	
Remove and replace	8,512
Irrigation System	
Remove and replace components	
Restrooms	
Refurbish upper level	6,810
Total for 2034	\$196,205
5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Replacement Year 2035	
Driveways	F 0/1
Crackfill	5,261
Concrete Pool Deck	14.025
Replace damaged sections	14,835
Concrete Pan	7 245
Replace damaged sections	7,365
Concrete Crosspans	10.050
Replace damaged sections	10,858
Wood Fencing Remove and replace	43,775
Vegetation	45,775
Remove and replace	8,768
Irrigation System	0,700
Remove and replace components	
Furniture	
Remove and replace	3,507
Interior Walls/Ceilings	3,301
Prep and paint	4,267
Total for 2035	\$98,635
10tal 101 2000	Ψ / Ο , Ο 3 3

Greenbrook Townhomes RA Preliminary Reserve Study Summary

Report Date January 30, 2016

Budget Year Beginning March 31, 2016 Budget Year Ending March 30, 2017

Report Parameters

Inflation 3.00%

Interest Rate on Reserve Deposit 0.25%

2016 Beginning Balance \$501,546.00

Preliminary Funding Model Summary of Calculations

Required Monthly Contribution Average Net Monthly Interest Earned Total Monthly Allocation to Reserves

\$15,833.00 <u>\$122.30</u>

\$15,955.30

Greenbrook Townhomes RA Preliminary Reserve Study Projection

Beginning Balance: \$501,546

Drainted Fully						
	Annual	Annual	Annual	Projected Ending	Fully Funded	Percent
Year	Contribution	Interest		res Reserves	Reserves	Funded
			•			
2016	189,996	1,468	18,038	674,972	1,656,232	40%
2017	197,596	1,737	87,840	786,465	1,755,521	44%
2018	205,500	2,123	49,587	944,500	1,893,667	49%
2019	213,720	2,172	192,366	968,026	1,895,186	51%
2020	222,268	2,490	93,692	1,099,092	2,001,308	54%
2021	231,159	2,626	175,149	1,157,728	2,033,186	56%
2022	240,406	2,998	90,148	1,310,984	2,155,161	60%
2023	250,022	1,892	690,516	872,381	1,704,676	51%
2024	260,023	802	692,753	440,453	1,280,788	34%
2025	270,424	180	514,802	196,255	1,049,250	18%
2026	281,240	305	226,647	251,153	1,110,690	22%
2027	292,490	343	272,530	271,456	1,135,085	23%
2028	304,190	1,008	33,346	543,307	1,400,374	38%
2029	316,357	1,716	28,871	832,510	1,671,713	49%
2030	329,012	2,262	107,083	1,056,699	1,869,370	56%
2031	342,172	2,422	274,268	1,127,026	1,908,707	59%
2032	355,859	2,957	138,210	1,347,632	2,089,000	64%
2033	370,093	3,208	266,294	1,454,639	2,150,159	67%
2034	384,897	3,671	196,205	1,647,002	2,289,705	71%
2035	400,293	4,418	98,635	1,953,078	2,530,749	77%