CAPITAL RESERVE ANALYSIS

FOR

SMYRNA GROVE

SMYRNA, GEORGIA

PREPARED FOR:

SMYRNA GROVE HOMEOWNERS ASSOCIATION, INC.
C/O CONDOMINIUM CONCEPTS MANAGEMENT, INC.
1200 LAKE HEARN DRIVE, SUITE 275
ATLANTA, GEORGIA 30319

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I. CAPITAL RESERVE DETERMINATION

A. METHODOLOGY AND ASSUMPTIONS

A Capital Reserve Analysis is a report giving an estimate of the amount of money which must be put aside to replace or restore the common elements and building components that will require replacement before the community's use expires. Typically, the items included are limited to those with a useful life of 30 years or less.

The commonly accepted guidelines as established by governing statutes, the Community Associations Institute, and our engineering judgment and experience have been used as a basis for the reserve schedule in this report. The schedule, when implemented in conjunction with a well-planned preventive maintenance program, will provide adequate funds for the replacement of the community's common elements as they reach the end of their useful lives. In order to assure that this schedule remains current, a reassessment of the existing condition and replacement costs for each item is necessary at a regular interval as recommended within the report. Updating of the schedule, reduction of the useful lives, and inflation of the replacement costs may be executed with the benefit of re-inspection. The schedule must also be adjusted as common elements are added or modified.

It is important to note that a reserve item is a common element component which will require replacement on a recurring basis using a similar cost item. If an upgrade is necessitated due to a cost change or other extraordinary reason, the cost over and above the replacement cost is considered to be a capital improvement rather than a capital replacement. Capital improvements should not be funded from the reserves. After it has been upgraded, the item will then become part of the reserve schedule.

Method of Accounting

The Method used in the Capital Reserve Analysis is the "Cash Flow" Method and the funding plan utilized is the Baseline Funding. The goal of this funding method is to keep the reserve cash balance above zero. This means that while each individual component may not be fully funded, the reserve balance does not drop below zero during the projected period.

Level of Service

This reserve analysis was completed utilizing a Level I, Full Service Study as defined under the National Reserve Standards that have been adopted by the Community Association Institute. The common component inventory was established based on information provided by the association's representative, field measurements and/or drawing take-offs. The Full Service Study includes a review of the common property components and preparation of this report.

B. SUMMARY OF REPLACEMENT RESERVE NEEDS

1. TECHNICAL DEFINITIONS

This page is a summary of each of the different categories within the detailed schedule. It shows the total dollar amounts for each category and is based on the full funding of each item.

Following are descriptions of the different variables, which are shown on the reserve schedule in the order in which they appear.

Description

This column on the schedule lists all of the components for which we recommend that reserves be accumulated. The basis for the selection of these items includes:

- Review of the governing documents regarding the common and limited common elements.
- Review of all available maintenance contracts.
- The type of component and its anticipated full useful life and condition.
- A review of applicable statutes dealing with reserve requirements.

Quantity

The quantities which are used as a basis for this report are calculated from field measurements and drawings which have been supplied to Ray Engineering, Inc. Ray Engineering, Inc. has not made extensive as-built measurements, and the quantities used are based primarily on the reference materials provided.

Unit Cost

The construction and replacement costs used in this report are based primarily on the various publications written by the R.S. Means Company and construction related experience of Ray Engineering. The publications are listed in the Bibliography.

Reserve Requirements Present Dollars

This is calculated by multiplying the "quantity" by the "unit costs."

Existing Reserve Fund

This is an allocation of the total existing reserve funds to the individual line items using a weighing factor which is based on the total "reserve requirement present dollars," the "estimated remaining life," and other factors. An existing balance was submitted to Ray Engineering, Inc. This balance was used in developing our Reserve Analysis.

Estimated Useful Life

The useful life values that are part of this report come from a variety of sources, some of which are listed in the Bibliography. In order to ensure that all items attain their anticipated useful lives, it is imperative that a well-planned maintenance schedule be adhered to. If an existing item is replaced with an upgraded product, the estimated remaining life has been listed for the new product.

Estimated Remaining Life

The estimated remaining life is based on both the age of the component and the results of the field inspections conducted in November 2018.

Annual Reserve Funding

The reserve requirement present value was converted to the future value for the time in which each replacement will occur. A 3% compounded inflation rate has been assumed. The future value was then converted to an annual reserve fund value. The arithmetic calculations and formulas are indicated later in this report.

C. EXECUTIVE SUMMARY

Smyrna Grove is a residential community that is still under development. It is the Consultant's understanding that after development is complete, there will be 194 single-family homes. The development is projected to be completed in 2019. The community is located off Windy Hill Road in Smyrna, Georgia. The common elements consist of private roads and parking, concrete curbs, common landscaped areas, entry monuments and signage, common area fencing, retaining walls, drainage, a swimming pool, a playground, a retention pond, a clubhouse, mail kiosks, lighting fixtures, irrigation and entry gates.

The clubhouse is a one-story structure. The foundation of the clubhouse appears to be constructed utilizing monolithic concrete slab-on-grade with turned down edges supporting a one-story building structure of conventional wood-framed construction. Exterior finishes consist of painted cement board lap siding with painted wood, cement board trim, soffit, and fascia boards in combination with stone veneer accents. The roof is a steep-pitched hip roof system, sheathed with fiberglass based composition asphalt shingles. Roof runoff is controlled by gutters and downspouts around the perimeter eave of the roof. The interior of the clubhouse contains a great room, an office, a kitchen with appliances, two restrooms, an equipment room, a fitness room, a storage room, and stone patio. The interior finishes generally consist of a combination of painted gypsum board at the walls with painted wood bases, crown molding, doors, and trim.

This reserve analysis was completed utilizing the "full" level of service, which included the property review and preparation of this report. This Reserve Analysis is prepared for the fiscal year starting January 1, 2019. It is our understanding that the reserve account for the community has a balance of approximately $50,000 with no annual contribution for 2018 as the property is still under development. Based on our analysis and review of the property, the current annual contribution the annual contribution should be $100,000 a year in 2019 and then increased by $10,000 every five years for the remainder of the reserve. The annual contribution of $100,000 is equivalent to an average contribution of $515.46 per year per residential home. For a review of the funding requirements for the next 20 years, please refer to the "Cost and Funding Recap" included as a part of this report.

D. REPLACEMENT RESERVE REQUIREMENTS

SCHEDULE I

Sitework

SCHEDULE II

Exterior/Interior Building Maintenance

SCHEDULE III

Electrical/Mechanical/Plumbing Maintenance

YEAR BY YEAR FUNDING RECAP - ALL ITEMS

COST AND FUNDING RECAP

ITEMIZED PROJECT COSTS BY YEAR

PROJECT NAME	SMYRNA GROVE	
INFLATION RATE	3.00%	
YIELD ON RESERVE FUNDS	0.00%	
BEGINNING YEAR OF FUNDING	2019	
PLANNING HORIZON	20	yrs

SCHEDULE Ia
SMYRNA GROVE
SITEWORK ITEMS - PRELIMINARY DATA

	Sitework Item Description	Units of Measure	Number of Units	Cost per Unit	Total Cost in Current Dollars	Estimated Useful Life	Estimated Remaining Life	Notes
1	Private Roads - Sealcoat/Restripe/Repair	S.Y.	15410	$2.50	$38,525	6	7	2
2	Private Roads - 1-1/2" Overlay	S.Y.	15410	$24.50	$377,545	20	21	2
3	Asphalt Parking Area/Alleyways - Sealcoat/Restripe/Repair	S.Y.	5250	$2.50	$13,125	6	7	2
4	Asphalt Parking Area/Alleyways - 1-1/2" Overlay	S.Y.	5250	$24.50	$128,625	20	21	2
5	Clubhouse Parking Area - Sealcoat/Restripe/Repair	S.Y.	2000	$2.50	$5,000	6	5	2
6	Clubhouse Parking Area - 1-1/2" Overlay	S.Y.	2000	$24.50	$49,000	20	19	2
7	Concrete Curb - Repair/Replace Cracked, Settled Sections	Allow	1	$4,000.00	$4,000	6	7	3
8	Sidewalks - Repair/Replace Cracked, Settled Sections	Allow	1	$8,000.00	$8,000	6	7	3
9	Entry Monument & Signage - Repair/Clean/Tuck Point	Allow	1	$15,000.00	$15,000	8	5	4
10	Entry Piers and Fence - Repair/Paint/Tuck Point	Allow	1	$17,500.00	$17,500	8	5	4
11	Landscaping - Upgrade/Remove Trees, Shrubs/Trim	Allow	1	$10,000.00	$10,000	5	3	5
12	Retaining Walls - Repair/Maintain	Allow	1	$10,000.00	$10,000	12	9	6
13	Common Area Fencing - Repair/Paint/Partial Replace	Allow	1	$6,000.00	$6,000	6	4	7
14	Drainage/Slope Erosion/Storm System - Repair, Maintain	Allow	1	$10,000.00	$10,000	7	8	8
15	Retention Pond - Remove Silt/Vegetation/Debris	Allow	1	$32,500.00	$32,500	15	16	9
16	Retention Pond - Repair/Clean Fencing/Concrete Structure	Allow	1	$2,000.00	$2,000	8	9	9
17	Swimming Pool Surface - Resurface/Rep. Tiles	L.S.	1	$25,000.00	$25,000	10	8	10
18	Swimming Pool Deck - Repair/Seal Cracks	Allow	1	$3,000.00	$3,000	6	3	10
19	Swimming Pool Deck - Partial Replacement	Allow	1	$10,000.00	$10,000	15	12	10
20	Swimming Pool Furniture - Partial Replacement	Allow	1	$6,000.00	$6,000	5	3	10
21	Swimming Pool Fence - Repair/Paint	Allow	1	$2,500.00	$2,500	8	5	10
22	Pool Deck Arbor - Repair/Stain	L.S.	1	$2,500.00	$2,500	8	5	10
23	Pool Deck Arbor - Replace	L.S.	1	$8,000.00	$8,000	20	17	10
24	Playground - Repair/Partial Replace Equipment	L.S.	1	$1,500.00	$1,500	8	6	11
25	Playground - Replace Equipment	L.S.	1	$10,000.00	$10,000	20	18	11
26	Walking Trail - Maintain	Allow	1	$2,000.00	$2,000	6	3	12
27	Underground Sewer Lines - Repair/Partial Replacement	Allow	1	$100,000	$100,000	30	19	1
28	Storm Drainage Pipes and Inlets (Concrete) - Repair/Partial Replace	Allow	1	$50,000	$50,000	30	19	1
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SCHEDULE Ib
SMYRNA GROVE
SITEWORK ITEMS - REPLACEMENT COST & FUNDING DATA

	Sitework Item Description	First Replacement			Second Replacement			Third Replacement			Fourth Replacement			Fifth Replacement		
		Yr Replaced	Adjusted Cost if Inflation is 3.00%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.00%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.00%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.00%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.00%	Annual Funding Thru Yr Replaced
1	Private Roads - Sealcoat/Restripe/Repair	2026	47381	5923	2032	56575	9429	2038	67554	11259	2044			2050		
2	Private Roads - 1-1/2" Overlay	2040			2060			2080			2100			2120		
3	Asphalt Parking Area/Alleyways - Sealcoat/Restripe/R	2026	16142	2018	2032	19275	3212	2038	23015	3836	2044			2050		
4	Asphalt Parking Area/Alleyways - 1-1/2" Overlay	2040			2060			2080			2100			2120		
5	Clubhouse Parking Area - Sealcoat/Restripe/Repair	2024	5796	966	2030	6921	1154	2036	8264	1377	2042			2048		
6	Clubhouse Parking Area - 1-1/2" Overlay	2038	85922	4296	2058			2078			2098			2118		
7	Concrete Curb - Repair/Replace Cracked, Settled Secti	2026	4919	615	2032	5874	979	2038	7014	1169	2044			2050		
8	Sidewalks - Repair/Replace Cracked, Settled Sections	2026	9839	1230	2032	11748	1958	2038	14028	2338	2044			2050		
9	Entry Monument & Signage - Repair/Clean/Tuck Poi	2024	17389	2898	2032	22028	2754	2040			2048			2056		
10	Entry Piers and Fence - Repair/Paint/Tuck Point	2024	20287	3381	2032	25699	3212	2040			2048			2056		
11	Landscaping - Upgrade/Remove Trees, Shrubs/Trim	2022	10927	2732	2027	12668	2534	2032	14685	2937	2037	17024	3405	2042		
12	Retaining Walls - Repair/Maintain	2028	13048	1305	2040			2052			2064			2076		
13	Common Area Fencing - Repair/Paint/Partial Replace	2023	6753	1351	2029	8063	1344	2035	9628	1605	2041			2047		
14	Drainage/Slope Erosion/Storm System - Repair, Maint	2027	12668	1408	2034	15580	2226	2041			2048			2055		
15	Retention Pond - Remove Silt/Vegetation/Debris	2035	52153	3068	2050			2065			2080			2095		
16	Retention Pond - Repair/Clean Fencing/Concrete Struc	2028	2610	261	2036	3306	413	2044			2052			2060		
17	Swimming Pool Surface - Resurface/Rep. Tiles	2027	31669	3519	2037	42561	4256	2047			2057			2067		
18	Swimming Pool Deck - Repair/Seal Cracks	2022	3278	820	2028	3914	652	2034	4674	779	2040			2046		
19	Swimming Pool Deck - Partial Replacement	2031	14258	1097	2046			2061			2076			2091		
20	Swimming Pool Furniture - Partial Replacement	2022	6556	1639	2027	7601	1520	2032	8811	1762	2037	10215	2043	2042		
21	Swimming Pool Fence - Repair/Paint	2024	2898	483	2032	3671	459	2040			2048			2056		
22	Pool Deck Arbor - Repair/Stain	2024	2898	483	2032	3671	459	2040			2048			2056		
23	Pool Deck Arbor - Replace	2036	13223	735	2056			2076			2096			2116		
24	Playground - Repair/Partial Replace Equipment	2025	1791	256	2033	2269	284	2041			2049			2057		
25	Playground - Replace Equipment	2037	17024	896	2057			2077			2097			2117		
26	Walking Trail - Maintain	2022	2185	546	2028	2610	435	2034	3116	519	2040			2046		
27	Underground Sewer Lines - Repair/Partial Replacemer	2038	175351	8768	2068			2098			2128			2158		
28	Storm Drainage Pipes and Inlets (Concrete) - Repair/P	2038	87675	4384	2068			2098			2128			2158		
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SCHEDULE IIa
SMYRNA GROVE
EXTERIOR/INTERIOR BUILDING MAINTENANCE ITEMS
PRELIMINARY DATA

	Exterior/Interior Building Maintenance Item Description	Units of Measure	Number of Units	Cost per Unit	Total Cost in Current Dollars	Estimated Useful Life	Estimated Remaining Life	Notes
1	Clubhouse Roof - Replace Shingles	Sq.	56	$275.00	$15,400	20	17	13
2	Clubhouse Roof - Replace Gutters and Downspouts	L.F.	370	$10.00	$3,700	20	17	13
3	Clubhouse Exterior Finishes - Repair/Paint/Seal/Caulk	Allow	1	$12,000.00	$12,000	10	7	13
4	Clubhouse Interior Finishes - Repair/Paint	Allow	1	$10,000.00	$10,000	12	9	13
5	Clubhouse Bathrooms - Repair/Paint	Ea.	2	$1,000.00	$2,000	8	5	13
6	Clubhouse Bathrooms - Upgrade	Ea.	2	$7,500.00	$15,000	20	17	13
7	Clubhouse Kitchen Cabinets/Counter - Part. Replacement	Allow	1	$15,000.00	$15,000	25	22	13
8	Clubhouse Furnishings - Partial Replacement	Allow	1	$10,000.00	$10,000	10	7	13
9	Clubhouse Fitness Equipment - Partial Replace	Allow	1	$15,000.00	$15,000	5	3	13
10	Clubhouse Floors - Patch/Repair	Allow	1	$4,000.00	$4,000	10	7	13
11	Clubhouse Fireplace and Stone Patio - Repair/Maintain	Allow	1	$12,000.00	$12,000	8	6	13
12	Patio Furnishings - Partial Replacement	Allow	1	$5,000.00	$5,000	10	7	13
13	Mailbox Kiosks/Pavilion Roofs - Replace Shingles	Sq.	12	$275.00	$3,300	20	17	14
14	Mailbox Kiosks/Pavilion Exterior Finishes - Repair/Paint	Ea.	3	$1,000.00	$3,000	10	7	14
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SCHEDULE IIb
SMYRNA GROVE
EXTERIOR/INTERIOR BUILDING MAINTENANCE ITEMS - REPLACEMENT COST & FUNDING DATA

	Exterior/Interior Building Maintenance Item Description	First Replacement			Second Replacement			Third Replacement			Fourth Replacement			Fifth Replacement		
		Yr Replaced	Adjusted Cost if Inflation is 3.00%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.00%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.00%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.00%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.00%	Annual Funding Thru Yr Replaced
1	Clubhouse Roof - Replace Shingles	2036	25454	1414	2056			2076			2096			2116		
2	Clubhouse Roof - Replace Gutters and Downspouts	2036	6116	340	2056			2076			2096			2116		
3	Clubhouse Exterior Finishes - Repair/Paint/Seal/Caulk	2026	14758	1845	2036	19834	1983	2046			2056			2066		
4	Clubhouse Interior Finishes - Repair/Paint	2028	13048	1305	2040			2052			2064			2076		
5	Clubhouse Bathrooms - Repair/Paint	2024	2319	386	2032	2937	367	2040			2048			2056		
6	Clubhouse Bathrooms - Upgrade	2036	24793	1377	2056			2076			2096			2116		
7	Clubhouse Kitchen Cabinets/Counter - Part. Replacemen	2041			2066			2091			2116			2141		
8	Clubhouse Furnishings - Partial Replacement	2026	12299	1537	2036	16528	1653	2046			2056			2066		
9	Clubhouse Fitness Equipment - Partial Replace	2022	16391	4098	2027	19002	3800	2032	22028	4406	2037	25536	5107	2042		
10	Clubhouse Floors - Patch/Repair	2026	4919	615	2036	6611	661	2046			2056			2066		
11	Clubhouse Fireplace and Stone Patio - Repair/Maintain	2025	14329	2047	2033	18151	2269	2041			2049			2057		
12	Patio Furnishings - Partial Replacement	2026	6149	769	2036	8264	826	2046			2056			2066		
13	Mailbox Kiosks/Pavilion Roofs - Replace Shingles	2036	5454	303	2056			2076			2096			2116		
14	Mailbox Kiosks/Pavilion Exterior Finishes - Repair/Paint	2026	3690	461	2036	4959	496	2046			2056			2066		
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SCHEDULE IIIa
SMYRNA GROVE
ELECTRICAL/MECHANICAL/PLUMBING ITEMS - PRELIMINARY DATA

	Electrical Mechanical Item Description	Units of Measure	Number of Units	Cost per Unit	Total Cost in Current Dollars	Estimated Useful Life	Estimated Remaining Life	Notes
1	Swimming Pool Equipment - Replace Pumps/Motors	Allow	1	$4,000.00	$4,000	8	6	10
2	Swimming Pool Filtration System - Replace Filters	Allow	1	$2,000.00	$2,000	8	6	10
3	Clubhouse Kitchen Appliances - Partial Replacement	Allow	1	$5,000.00	$5,000	12	9	13
4	Clubhouse HVAC System - Replace Equipment	Ea.	2	$8,000.00	$16,000	15	12	13
5	Clubhouse Electrical Fixtures - Partial Repl.	Allow	1	$4,000.00	$4,000	8	5	13
6	Clubhouse Plumbing & Fixtures - Partial Repl.	Allow	1	$3,000.00	$3,000	8	5	13
7	Clubhouse Water Heater - Replace	Allow	1	$2,000.00	$2,000	12	9	13
8	Clubhouse Drinking Fountain - Replace	L.S.	1	$1,000.00	$1,000	15	12	13
9	Patio Grills - Replace	Allow	1	$1,200.00	$1,200	8	5	13
10	Pet Wash Station - Replace	Allow	1	$3,000.00	$3,000	15	12	13
11	Accent Lighting - Replace Fixtures	Allow	1	$3,000.00	$3,000	7	4	15
12	Irrigation System - Repair/Maintain	L.S.	1	$5,000.00	$5,000	5	2	16
13	Entrance Gates - Replace Motors/Controllers/Paint	Ea.	6	$5,000.00	$30,000	12	9	17
14	Directory & Access System - Upgrade	Ea.	2	$6,000.00	$12,000	10	7	17
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SCHEDULE IIIb
SMYRNA GROVE
ELECTRICAL/MECHANICAL/PLUMBING ITEMS - REPLACEMENT COST & FUNDING DATA

	Electrical Mechanical Item Description	First Replacement			Second Replacement			Third Replacement			Fourth Replacement			Fifth Replacement		
		Yr Replaced	Adjusted Cost if Inflation is 3.00%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.00%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.00%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.00%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.00%	Annual Funding Thru Yr Replaced
1	Swimming Pool Equipment - Replace Pumps/Motors	2025	4776	682	2033	6050	756	2041			2049			2057		
2	Swimming Pool Filtration System - Replace Filters	2025	2388	341	2033	3025	378	2041			2049			2057		
3	Clubhouse Kitchen Appliances - Partial Replacement	2028	6524	652	2040			2052			2064			2076		
4	Clubhouse HVAC System - Replace Equipment	2031	22812	1755	2046			2061			2076			2091		
5	Clubhouse Electrical Fixtures - Partial Repl.	2024	4637	773	2032	5874	734	2040			2048			2056		
6	Clubhouse Plumbing & Fixtures - Partial Repl.	2024	3478	580	2032	4406	551	2040			2048			2056		
7	Clubhouse Water Heater - Replace	2028	2610	261	2040			2052			2064			2076		
8	Clubhouse Drinking Fountain - Replace	2031	1426	110	2046			2061			2076			2091		
9	Patio Grills - Replace	2024	1391	232	2032	1762	220	2040			2048			2056		
10	Pet Wash Station - Replace	2031	4277	329	2046			2061			2076			2091		
11	Accent Lighting - Replace Fixtures	2023	3377	675	2030	4153	593	2037	5107	730	2044			2051		
12	Irrigation System - Repair/Maintain	2021	5305	1768	2026	6149	1230	2031	7129	1426	2036	8264	1653	2041		
13	Entrance Gates - Replace Motors/Controllers/Paint	2028	39143	3914	2040			2052			2064			2076		
14	Directory & Access System - Upgrade	2026	14758	1845	2036	19834	1983	2046			2056			2066		
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SMYRNA GROVE
COST & FUNDING RECAP

Year	Annual Funds	Future Expenses	Net Accumulated Funds
Current Funds			50,000
2019	$100,000	0	150,000
2020	$100,000	0	250,000
2021	$100,000	5,305	344,696
2022	$100,000	39,338	405,357
2023	$100,000	10,130	495,228
2024	$110,000	61,094	544,134
2025	$110,000	23,284	630,850
2026	$110,000	141,005	599,845
2027	$110,000	83,607	626,238
2028	$110,000	83,505	652,733
2029	$120,000	8,063	764,669
2030	$120,000	11,074	873,595
2031	$120,000	49,902	943,694
2032	$120,000	209,046	854,648
2033	$120,000	29,495	945,152
2034	$130,000	23,370	1,051,783
2035	$130,000	61,781	1,120,002
2036	$130,000	170,904	1,079,097
2037	$130,000	117,468	1,091,629
2038	$130,000	460,558	761,071

SMYRNA GROVE
ITEMIZED PROJECTED COSTS BY YEAR

Year	*Item*	*Cost*
Grand Total		**$1,588,929**
2021 Total		**$5,305**
2021	Irrigation System - Repair/Maintain	$5,305
2022 Total		**$39,338**
2022	Clubhouse Fitness Equipment - Partial Replace	$16,391
2022	Landscaping - Upgrade/Remove Trees, Shrubs/Trim	$10,927
2022	Swimming Pool Deck - Repair/Seal Cracks	$3,278
2022	Swimming Pool Furniture - Partial Replacement	$6,556
2022	Walking Trail - Maintain	$2,185
2023 Total		**$10,130**
2023	Accent Lighting - Replace Fixtures	$3,377
2023	Common Area Fencing - Repair/Paint/Partial Replace	$6,753
2024 Total		**$61,094**
2024	Clubhouse Bathrooms - Repair/Paint	$2,319
2024	Clubhouse Electrical Fixtures - Partial Repl.	$4,637
2024	Clubhouse Parking Area - Sealcoat/Restripe/Repair	$5,796
2024	Clubhouse Plumbing & Fixtures - Partial Repl.	$3,478
2024	Entry Monument & Signage - Repair/Clean/Tuck Point	$17,389
2024	Entry Piers and Fence - Repair/Paint/Tuck Point	$20,287
2024	Patio Grills - Replace	$1,391
2024	Pool Deck Arbor - Repair/Stain	$2,898
2024	Swimming Pool Fence - Repair/Paint	$2,898
2025 Total		**$23,284**
2025	Clubhouse Fireplace and Stone Patio - Repair/Maintain	$14,329
2025	Playground - Repair/Partial Replace Equipment	$1,791
2025	Swimming Pool Equipment - Replace Pumps/Motors	$4,776
2025	Swimming Pool Filtration System - Replace Filters	$2,388
2026 Total		**$141,005**
2026	Asphalt Parking Area/Alleyways - Sealcoat/Restripe/Repair	$16,142
2026	Clubhouse Exterior Finishes - Repair/Paint/Seal/Caulk	$14,758
2026	Clubhouse Floors - Patch/Repair	$4,919
2026	Clubhouse Furnishings - Partial Replacement	$12,299
2026	Concrete Curb - Repair/Replace Cracked, Settled Sections	$4,919
2026	Directory & Access System - Upgrade	$14,758
2026	Irrigation System - Repair/Maintain	$6,149
2026	Mailbox Kiosks/Pavilion Exterior Finishes - Repair/Paint	$3,690
2026	Patio Furnishings - Partial Replacement	$6,149
2026	Private Roads - Sealcoat/Restripe/Repair	$47,381
2026	Sidewalks - Repair/Replace Cracked, Settled Sections	$9,839
2027 Total		**$83,607**
2027	Clubhouse Fitness Equipment - Partial Replace	$19,002
2027	Drainage/Slope Erosion/Storm System - Repair, Maintain	$12,668
2027	Landscaping - Upgrade/Remove Trees, Shrubs/Trim	$12,668
2027	Swimming Pool Furniture - Partial Replacement	$7,601
2027	Swimming Pool Surface - Resurface/Rep. Tiles	$31,669

2028 Total		**$83,505**
2028	Clubhouse Interior Finishes - Repair/Paint	$13,048
2028	Clubhouse Kitchen Appliances - Partial Replacement	$6,524
2028	Clubhouse Water Heater - Replace	$2,610
2028	Entrance Gates - Replace Motors/Controllers/Paint	$39,143
2028	Retaining Walls - Repair/Maintain	$13,048
2028	Retention Pond - Repair/Clean Fencing/Concrete Structure	$2,610
2028	Swimming Pool Deck - Repair/Seal Cracks	$3,914
2028	Walking Trail - Maintain	$2,610
2029 Total		**$8,063**
2029	Common Area Fencing - Repair/Paint/Partial Replace	$8,063
2030 Total		**$11,074**
2030	Accent Lighting - Replace Fixtures	$4,153
2030	Clubhouse Parking Area - Sealcoat/Restripe/Repair	$6,921
2031 Total		**$49,902**
2031	Clubhouse Drinking Fountain - Replace	$1,426
2031	Clubhouse HVAC System - Replace Equipment	$22,812
2031	Irrigation System - Repair/Maintain	$7,129
2031	Pet Wash Station - Replace	$4,277
2031	Swimming Pool Deck - Partial Replacement	$14,258
2032 Total		**$209,046**
2032	Asphalt Parking Area/Alleyways - Sealcoat/Restripe/Repair	$19,275
2032	Clubhouse Bathrooms - Repair/Paint	$2,937
2032	Clubhouse Electrical Fixtures - Partial Repl.	$5,874
2032	Clubhouse Fitness Equipment - Partial Replace	$22,028
2032	Clubhouse Plumbing & Fixtures - Partial Repl.	$4,406
2032	Concrete Curb - Repair/Replace Cracked, Settled Sections	$5,874
2032	Entry Monument & Signage - Repair/Clean/Tuck Point	$22,028
2032	Entry Piers and Fence - Repair/Paint/Tuck Point	$25,699
2032	Landscaping - Upgrade/Remove Trees, Shrubs/Trim	$14,685
2032	Patio Grills - Replace	$1,762
2032	Pool Deck Arbor - Repair/Stain	$3,671
2032	Private Roads - Sealcoat/Restripe/Repair	$56,575
2032	Sidewalks - Repair/Replace Cracked, Settled Sections	$11,748
2032	Swimming Pool Fence - Repair/Paint	$3,671
2032	Swimming Pool Furniture - Partial Replacement	$8,811
2033 Total		**$29,495**
2033	Clubhouse Fireplace and Stone Patio - Repair/Maintain	$18,151
2033	Playground - Repair/Partial Replace Equipment	$2,269
2033	Swimming Pool Equipment - Replace Pumps/Motors	$6,050
2033	Swimming Pool Filtration System - Replace Filters	$3,025
2034 Total		**$23,370**
2034	Drainage/Slope Erosion/Storm System - Repair, Maintain	$15,580
2034	Swimming Pool Deck - Repair/Seal Cracks	$4,674
2034	Walking Trail - Maintain	$3,116
2035 Total		**$61,781**
2035	Common Area Fencing - Repair/Paint/Partial Replace	$9,628
2035	Retention Pond - Remove Silt/Vegetation/Debris	$52,153
2036 Total		**$170,904**
2036	Clubhouse Bathrooms - Upgrade	$24,793
2036	Clubhouse Exterior Finishes - Repair/Paint/Seal/Caulk	$19,834

2036	Clubhouse Floors - Patch/Repair	$6,611
2036	Clubhouse Furnishings - Partial Replacement	$16,528
2036	Clubhouse Parking Area - Sealcoat/Restripe/Repair	$8,264
2036	Clubhouse Roof - Replace Gutters and Downspouts	$6,116
2036	Clubhouse Roof - Replace Shingles	$25,454
2036	Directory & Access System - Upgrade	$19,834
2036	Irrigation System - Repair/Maintain	$8,264
2036	Mailbox Kiosks/Pavilion Exterior Finishes - Repair/Paint	$4,959
2036	Mailbox Kiosks/Pavilion Roofs - Replace Shingles	$5,454
2036	Patio Furnishings - Partial Replacement	$8,264
2036	Pool Deck Arbor - Replace	$13,223
2036	Retention Pond - Repair/Clean Fencing/Concrete Structure	$3,306
2037 Total		**$117,468**
2037	Accent Lighting - Replace Fixtures	$5,107
2037	Clubhouse Fitness Equipment - Partial Replace	$25,536
2037	Landscaping - Upgrade/Remove Trees, Shrubs/Trim	$17,024
2037	Playground - Replace Equipment	$17,024
2037	Swimming Pool Furniture - Partial Replacement	$10,215
2037	Swimming Pool Surface - Resurface/Rep. Tiles	$42,561
2038 Total		**$460,558**
2038	Asphalt Parking Area/Alleyways - Sealcoat/Restripe/Repair	$23,015
2038	Clubhouse Parking Area - 1-1/2" Overlay	$85,922
2038	Concrete Curb - Repair/Replace Cracked, Settled Sections	$7,014
2038	Private Roads - Sealcoat/Restripe/Repair	$67,554
2038	Sidewalks - Repair/Replace Cracked, Settled Sections	$14,028
2038	Storm Drainage Pipes and Inlets (Concrete) - Repair/Partial	$87,675
2038	Underground Sewer Lines - Repair/Partial Replacement	$175,351

E. NOTES

The accompanying notes are an integral part of the reserve schedule contained in this report. When reviewing the schedule, please be sure to read all notes pertaining to a particular line item. This will provide the most complete explanation of each line item and will provide any clarification where necessary.

1. These items were found to be in good condition and well maintained. The useful life reflects the age and overall condition of the respective item.

2. **Private Roads/Parking Areas–** The asphalt roads and parking areas appear to consist of a graded aggregate base, asphalt base course, and asphalt surface course. The perimeters of the parking and private roads are surrounded by concrete curb and gutters. The Association is responsible for the parking lot at the clubhouse, the private roads, and the private alleyways between homes. It is also our understanding that some sections of the roads are still in need of a top coat which will be applied before turnover. From our review, the completed asphalt pavement appeared to be in good condition and installed properly with no obvious or major deficiencies observed.

   In order to prolong the useful life of the asphalt pavement, we recommend that the cracks be filled and the pavement be sealcoated and striped every six to eight years. The useful life of asphalt pavement is approximately 20 years, after which, a new layer of asphalt should be installed. Prior to overlay, any settled areas should be removed, the base then re-compacted, and a new layer of asphalt course installed. It is recommended that a budget be allocated for the resurfacing of the asphalt with a 1-1/2" overlay every 20 years. We recommend that the asphalt surface be inspected approximately every ten years to determine if the condition of asphalt is adequate and if the useful life can be prolonged. We have allotted separate budgets for the clubhouse parking lot and the private roads.

3. **Concrete Curb/Sidewalks –** The concrete curbs at the private sections of the property appeared to be in generally good condition and installed properly. It is our understanding that the Association is considering making the sidewalks private. As requested, we have added a budget for the sidewalks.

Any sections of curb and sidewalks that are settling should be monitored, and if they continue to settle, these sections should be replaced. We have provided a budget for the replacement of damaged, deteriorated, or settled sections of the concrete curbs and sidewalk at the property. The budgets are provided every six years and the funding can be used when necessary, during the estimated useful life. The budgets are not for complete replacement of the concrete curbs or sidewalks, only replacement of the sections that become trip hazards or safety concerns. Any vertical displacement at cracks that could potentially represent a trip hazard and liability should be replaced.

4. **Entry Monuments and Signage –** The entry monuments and signage consist of brick veneer piers with stone accents that support the entry gates and sections of metal picket fencing, and multiple brick veneer monuments with painted raised metal lettering. From our review, the entry monuments and signage appeared to be in generally good condition and well maintained (reference photograph 1).

Any mildew growth on the monuments and grout joints may be power washed as part of regular maintenance for a better appearance. It is recommended that $15,000 be allocated for the repair, cleaning, and tuck pointing of the entry monuments and signage every eight years. It is also recommended that $17,500 be allotted for the repair, cleaning, and tuck pointing of the brick veneer piers and fencing every eight years.

5. **Landscaping** - The landscaping at the common areas consists of small and large trees, shrubs, and common landscaped areas. From our review, the common area landscaping appeared to be in generally good condition and installed properly. The appearance of the community is very subjective, as is the allocation of funds for the upgrade of the landscape materials. From our experience with similar communities, upgrading of the community landscaping is typically done every five years.

A budget of $10,000 has been allocated for the replacement of any uprooting, damaged or diseased shrubs and trees, trimming of trees, and upgrade of the landscaping every five years. This is not designed for yearly or routine

landscaping or annual flower installation. All trees that are located within 10′ of a structure should be removed or monitored to prevent any damage.

6. **Retaining Walls** – The retaining walls at the property are large engineered segmental block retaining walls. They should have a service life greater than 50 years, with proper maintenance. From our review, the retaining walls appeared to be in generally good condition and installed properly with no obvious deficiencies observed.

   It is recommended that $10,000 be allocated for the repair and maintenance of the retaining walls every 12 years.

7. **Common Area Fencing** – The common fencing at the property generally consists of a perimeter painted, chain link fence. A chain link fence typically has a useful life of 30+ years, with proper maintenance. Typically, depreciation of the estimated useful life of the fence is caused by physical damage from a tree or vegetation, an individual, or wildlife. The paint will also begin to chip and fade over time and a new coat should be installed. At the time of our review, sections of the fence were covered by vegetation so all areas of the common area fencing were not evaluated (reference photograph 2). Our general observation found no evidence that would indicate any major problems and the fencing appears to be properly installed and maintained.

   It is recommended that $6,000 be allotted for the repair, painting and partial replacement of the common area fencing, as needed, approximately every six years.

8. **Drainage** - The drainage at the property generally consists of surface flow to drain inlets and grassed swales located at the common landscaped areas and concrete curbs. The stormwater is then piped underground to the retention pond at the south end of the property, behind the clubhouse. From our review, the overall drainage at the property appeared to be functioning adequately with no obvious signs of poor drainage or major erosion.

   If there are any areas that appear to have poor drainage in the future, it is

recommended that swales and river rock be installed to improve the surface flow of water, as needed. It should be noted that it is possible to install French drains in landscaped areas to further improve the drainage. A budget of $10,000 has been allotted for the maintenance and repair of the stormwater drainage every seven years. As a result of the current construction at the property, the budget for the drainage should be allocated after turnover. The budget for the drainage may decrease over time as a result of proper maintenance.

9. **Retention Pond (Lake) –** At the south end of the property, behind the clubhouse, is a retention pond. The pond is partially surrounded by a modular block retaining wall and a chain link fence. There are concrete drainage structures at each end of the pond. It is our understanding that the retention pond has accumulated a large amount of silt during development and the Developer is planning on cleaning out the pond before the property is turned over. Typically, all drainage detention and retention areas accumulate large amounts of silt and debris during development. After the retention pond is cleaned out, the retention pond should be re-inspected to determine if the work was completely correctly and the pond is drainage properly (reference photograph 3).

The following are the estimated useful lives of the retention pond items and components.

Retention Pond – Remove Silt/Vegetation/Debris ..... Every 14-15 years
Retention Pond – Repair/Clean Fencing/Concrete Structures..... Every 7-8 years

We have provided budgets for each of the referenced items above and have included them in the reserve.

10. **Swimming Pool/Deck/Equipment** - The swimming pool consists of an in-ground concrete pool with plaster finish. The pool deck consists of a concrete slab-on-grade and is surrounded by a pre-finished aluminum picket fence. At the corner of the pool deck is a wood-framed arbor. From our review, the swimming pool and all corresponding components appeared to be in generally good condition; however, there is a linear crack along the pool surface and there a linear crack at the pool deck (reference photographs 4-6). It is our understanding that the crack

at the surface of the swimming pool may be increasing in size and should be further investigated to determine if the pool is settling and/or there is damage to the structural integrity of the pool. After the crack is investigated, proper repairs and patching should be conducted.

Following are the estimated useful lives of the components of the pool:

Swimming Pool Surface - Resurface/Repl. Tiles..... Every 8-10 years
Swimming Pool Deck – Repair/Seal Cracks..... Every 5-6 years
Swimming Pool Deck – Partial Replacement..... Every 12-15 years
Swimming Pool Furniture – Partial Replacement..... Every 4-5 years
Swimming Pool Fence/Gate – Repair/Paint..... Every 7-8 years
Pool Arbor– Repair/Stain..... Every 7-8 years
Pool Arbor– Replace..... Every 18-20 years
Swimming Pool Equipment – Replace Pumps/Motors..... Every 7-8 years
Swimming Pool Filtration System – Replace Filters …….Every 7-8 years

We have provided budgets for each of the referenced items above and have included them in the reserve.

11. **Playground** – The playground equipment is located at the center of the property. Playground equipment consists of a wood-framed structure with polyethylene slides. From our review, the existing playground equipment appeared to be in generally good condition and structurally sound (reference photograph 7).

It is recommended that $1,500 be allotted for the repair and partial replacement of the playground equipment every eight years. It is also recommended that $10,000 be allotted for the replacement of the playground equipment every 20 years.

12. **Walking Trail** – There is a walking trail located along the perimeter of the retention pond. The walking trail consists of a resin material. It is our understanding that the walking trail may be replaced with a different material in the near future. From our review, the walking trail appeared to be in generally

good condition and installed properly; however, as a result of the recent heavy rain, sections of the trail have signs of erosion (reference photograph 8).

If sections of the trail show signs of erosion, it is recommended that the surface of the walking trail be re-graded. It is recommended that $2,000 be allotted for maintenance of the walking trail approximately every five to six years.

13. **Clubhouse** - The clubhouse is a one-story structure. The foundation of the clubhouse appears to be constructed utilizing monolithic concrete slab-on-grade with turned down edges supporting a one-story building structure of conventional wood-framed construction. Exterior finishes consist of painted cement board lap siding with painted wood, cement board trim, soffit, and fascia boards in combination with stone veneer accents. The roof is a steep-pitched hip roof system, sheathed with fiberglass based composition asphalt shingles. Roof runoff is controlled by gutters and downspouts around the perimeter eave of the roof. The interior of the clubhouse contains a great room, an office, a kitchen with appliances, two restrooms, an equipment room, a fitness room, a storage room, a pet washing stating, and stone patio with a fireplace and grills. The interior finishes generally consist of a combination of painted gypsum board at the walls with painted wood bases, crown molding, doors, and trim. From our review, the clubhouse and all corresponding components appeared to be in generally good condition and installed properly with no obvious deficiencies observed (reference photographs 9-13).

The following are the estimated useful lives of the clubhouse's components:

Clubhouse Roof – Replace ……..Every 20-25 years
Clubhouse Roof – Repl. Gutters and Downspouts ……..Every 20-25 years
Clubhouse Ext. Surfaces – Rep./Paint/Seal/Caulk…….Every 8-10 years
Clubhouse Interior Finishes– Repair/Paint/Stain……...Every 10-12 years
Clubhouse Bathrooms – Repair/Paint/Repair Tile……...Every 7-8 years
Clubhouse Bathrooms – Upgrade……...Every 18-20 years
Clubhouse Kitchen Cabinets/Countertops Replace……...Every 20-25 years
Clubhouse Furnishings– Partial Replacement……...Every 8-10 years

Clubhouse Fitness Equipment – Partial Replace Equipment.……Every 4-5 years
Clubhouse Floors – Patch/Repair.……Every 9-10 years
Clubhouse Fireplace/Stone Patio – Repair/Maintain.……..Every 7-8 years
Patio Furnishings– Partial Replacement.…….....Every 8-10 years
Clubhouse Kitchen Applia. – Rep./Partial Repl.……...Every 10-12 years
Clubhouse HVAC Systems – Replace Equipment.….....Every 12-15 years
Clubhouse Electrical Fixtures – Partial Repl..……..Every 7-8 years
Clubhouse Plumbing Fixtures – Partial Repl..……...Every 7-8 years
Clubhouse Water Heater – Replace.……....Every 10-12 years
Clubhouse Drinking Fountain – Replace.……...Every 12-15 years
Patio Grills – Replace.……....Every 7-8 years
Pet Wash Station – Replace.……..Every 12-15 years

We have provided budgets for each of the referenced items above and have included them in the reserve.

14. **Mailbox Kiosks/Pavilion** – There are two mail kiosks and one pavilion at the property. The mailbox kiosks and pavilion consist of wood-framed construction. The roofs consist of moderately steep-sloped roof with composition asphalt shingles. From our review, the mailbox kiosks and pavilion appeared to be in generally good condition and structurally sound; however, we observed cracks in the stone at the base of the columns at the mail kiosks (reference photographs 14-16).

The cracks in the stone are minor and are typically repaired under the operating budget. It is recommended that $3,300 be allotted for the replacement of the roofs every 20-25 years. A budget of $3,000 is allotted for the repair and painting of the mail kiosks and pavilion exterior surfaces that should be completed, as needed, every nine to ten years.

15. **Lighting -** The lighting at the property consists of small accent lighting along the entry monuments, trees lining the entry boulevards, and around the common areas. From our review, the accent lighting appeared to be operating properly and in good condition. Typically, this type of lighting has a useful life of 10 to 15

years with proper maintenance.

It is recommended that $3,000 be allotted for the repair and partial replacement of the accent lighting fixtures every six to seven years.

16. **Irrigation** - It should be noted that we did not operate or test each zone, as it was not part of the scope of work; however, we did visually observe all the irrigated areas to identify any obvious deficiencies. Our general observation found no evidence that would indicate any major problems with the system and the system appears to be properly maintained. Therefore, we would assume that it is functioning adequately.

It is recommended that $5,000 be allocated for the general repair and maintenance of the irrigation system, as needed, every four to five years.

17. **Entry Gates/Controllers/Access System –** There are security gates at the property that consist of steel frame swinging gates that are mounted to the entry brick veneer piers. The directory/access system is located at the entrances to the property, at the center islands, that controls the security gates. It is our understanding that the Association may install additional gates in the near future. From our review, the entry gates and directory/access system appeared to be in generally good condition and operating properly with no obvious evidence found that would suggest any remedial work at this time. Due to changes in code compliance, technology and normal wear and tear, remote access systems and directories become obsolete and/or become lacking in new features. Most systems can be upgraded or modified as needed to keep-up with the changing requirements and features (reference photograph 17).

It is recommended that a total of $30,000 be allotted for the replacement of the entry motors and the access controllers every 10 to 12 years. It is also recommended that a total of $12,000 be allotted for the upgrading of the directory and remote access system, as needed, every eight to ten years.

II. RESERVE CASH FLOW ANALYSIS

A. INTRODUCTION

The enclosed chart and graph contain a 20-year cash flow projection of the reserve requirements for the Association. The budget should be adjusted at the end of the 20-year period to readjust for changes in remaining life, inflation, and current costs of replacements. This cash flow analysis is based on the assumption that all of the items that make up the schedule are fully funded. By this, we mean that each item will accumulate its full replacement cost during its life span. At the end of this life, each item would be replaced and the funding would start aging for items with a long life. For items with a short useful life, the funding for the first replacement is budgeted in addition to future replacements due to the short life span. The future replacement funding is started in the first year; however, payments are less than the first replacement due to the extended time period allowed to accumulate funds. Taking all of the components that make up the reserve schedule, using this full funding analysis, there is typically an ongoing surplus in the reserve fund. This ensures that the Association will have a surplus at the end of the 10-year period. This is called the "pooling effect" and is represented by the upper line on the cash flow chart, which is designated as the "Net Cumulative Fund." The "Net Cumulative Fund" is calculated by taking the existing amount in the reserve fund at the time the reserve schedule is prepared, adding to it the yearly contribution, and subtracting from it the annual expenditures.

The annual reserve funding required has been calculated by estimating the useful remaining life based on the current condition, age, and all other known factors of each item description. The present value replacement cost was estimated by either past quotations or other listed methods of estimation. The present value replacement cost was then converted to future value using a 3% annual compounded inflation rate. The future cost was calculated for the projected time when replacement will be required.

The future cost was then broken down into annual installments while still considering the 3% compounded annual inflation rate. The monthly reserve funding was calculated by a further breakdown of the annual reserve funding required.

1. Formulas

The following economic formulas were used in our calculations:

DISCOUNTING FACTOR	FUNCTIONAL NOTATION	FORMULA
Single Payment Compound Amount	(F/P, i %, n)	$(1+i)^n$
Uniform Series Sinking Fund	(A/F, i %, n)	$i/[(1+i)^{n-1}]$

2. Definitions

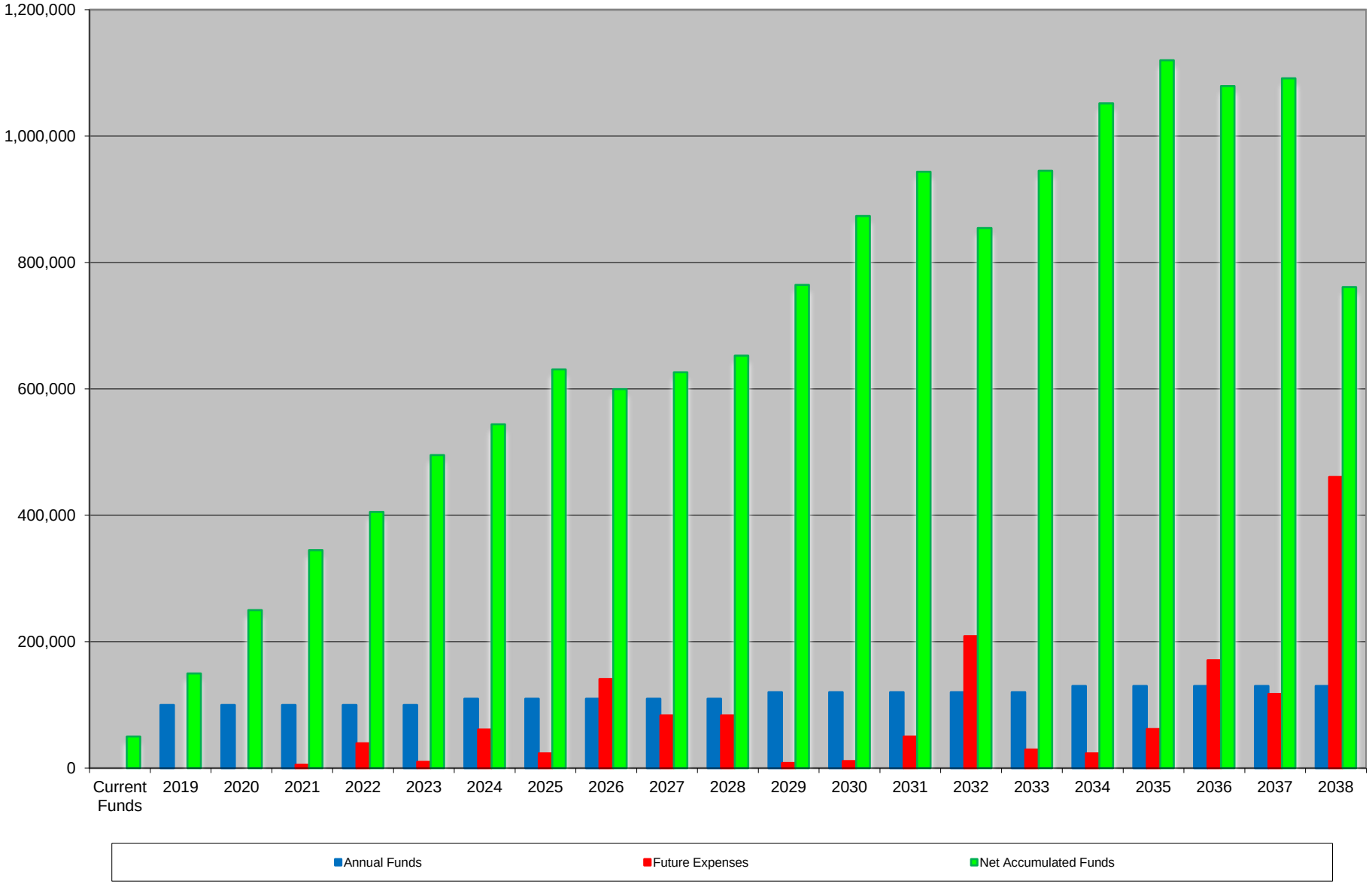
Definitions of the above-mentioned terms are as follows:

TERM	DEFINITION
Single Payment Compound Amount	Conversion of present worth to future value
Uniform Series Sinking Fund	Conversion of future value to annual value
F	Future worth of item in *n* years from present
P	Present Worth
A	Annual worth
I	Interest Rate (0.00% used)
N	# of years until each calculated replacement

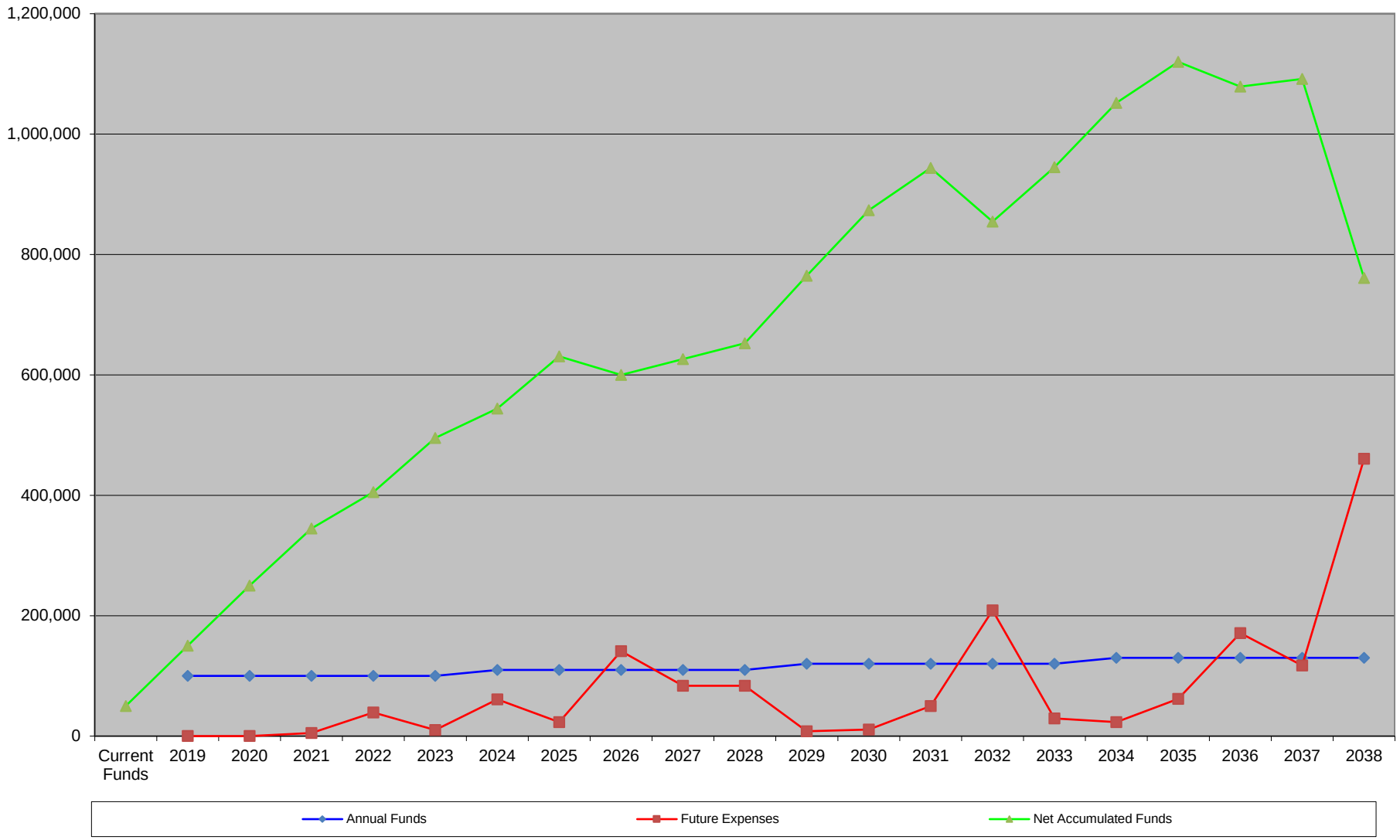
B. PROJECTED CASH FLOW GRAPH AND CHART

The projected cash flow for the Capital Reserve Analysis is illustrated by the bar graph and line chart on the following pages.

SMYRNA GROVE - PROJECTED CASH FLOW



SMRYNA GROVE - PROJECTED CASH FLOW



C. RECOMMENDATIONS AND CONCLUSIONS

Based on our review, we would make the following recommendations. The Association should set aside the following amount for the specified year into the reserve fund:

COST AND FUNDING RECAP

Year	Annual Funds	Future Expenses	Net Accumulated Funds
Current Funds			50,000
2019	$100,000	0	150,000
2020	$100,000	0	250,000
2021	$100,000	5,305	344,696
2022	$100,000	39,338	405,357
2023	$100,000	10,130	495,228
2024	$110,000	61,094	544,134
2025	$110,000	23,284	630,850
2026	$110,000	141,005	599,845
2027	$110,000	83,607	626,238
2028	$110,000	83,505	652,733
2029	$120,000	8,063	764,669
2030	$120,000	11,074	873,595
2031	$120,000	49,902	943,694
2032	$120,000	209,046	854,648
2033	$120,000	29,495	945,152
2034	$130,000	23,370	1,051,783
2035	$130,000	61,781	1,120,002
2036	$130,000	170,904	1,079,097
2037	$130,000	117,468	1,091,629
2038	$130,000	460,558	761,071

The Association should update the reserve schedule a minimum of once every two years. It is especially important to update the schedule when using average contribution due to the fact that even a minor change in the estimated useful life can have a significant impact on adequate funding.

The Association should review each of the individual line items that make up the reserve schedule to make sure that there is no overlap between what is indicated in the schedule and any other portion of the budget. For example, we may show on the reserve schedule the replacement of fencing, but at the same time, the Association may be replacing the fencing out of their operating budget. If duplication like this exists, the item should either be removed from the reserve schedule or the operation budget. It should not be funded in two different locations.

The Association should review the items on the schedule to assure that their replacement is not covered under a maintenance contract. An example would be reserving for the replacement of mechanical equipment components while the Association has a maintenance contract for the item at the same time. The reserve schedule should be carefully reviewed to be sure that it does not fund the replacement of any portion of any item whose replacement is covered under a maintenance contract.

The Association should review the items on the schedule to be sure that they are all the Association's responsibility. As an example, if we have included site lighting on the reserve schedule, but at the same time the local municipality is responsible for the maintenance and repair of these connections, they should be removed from the schedule.

The Association should review the individual line items on the reserve schedule carefully to determine if a number of the smaller individual components can be consolidated into one line item which can be continuously funded.

For example, if there are five or six components with a total replacement cost of $1,000 each, rather than reserving the full $5,000 or $6,000 for all of these items, the Association may want to consider funding all six components under one line item for a total of $1,000. Should one of these six items have to be replaced, that line item would have to be brought current within a year or so after its expenditure. By doing this rather than

funding the full $6,000, only a portion of the total would be funded. This would reduce the overall yearly contribution to reserves.

Depending on the size of the overall operating budget, the Association may decide that any line item of less than the given amount will be funded directly through the operating budget rather than through the reserve schedule. If this is the case, any item with the given value or less should be removed from the schedule. The schedule would then be footnoted accordingly.

III. RECOMMENDED MAINTENANCE SCHEDULE

The following guidelines are intended to ensure that a program of preventive maintenance is implemented in order to assure that, as a minimum, the predicted useful lives of the major common elements is attained. A preventive maintenance program is made up of "a system of periodic inspections of existing facilities to uncover conditions leading to breakdown or harmful depreciation and the correction of these conditions while they are still minor." It should be noted that experience has shown that a proper maintenance program can add 50% to the expected useful life of some items.

In any case, the proper determination of the useful lives of the items which make up your common elements is critical to the proper updating of the reserve schedule. The items included will only attain their anticipated useful lives if a proper maintenance program is implemented. For this reason, it is recommended that the reserve schedule be updated every two years to assure that all items are being properly maintained.

A. ASPHALT PAVEMENT

The early detection and repair of minor defects is the most important consideration in the preventive maintenance of pavements. Cracks and other surface breaks, which in their first stages are almost unnoticeable, may develop into serious defects if not repaired in a timely manner. For this reason, walking inspections of the pavement should be conducted in the fall and spring of each year, as a minimum.

The inspections should note small cracks or other surface breaks in the pavement. In addition, there are other signs, such as mud or water on the pavement surface or soil erosion along the edges of the pavement, which may indicate possible future problem areas.

Most small cracks or surface breaks can be repaired by sealing them with a good commercial-grade caulk. Areas which have settled and pose a possible trip hazard should be cut out and replaced to prevent a potential liability problem, as well as to prevent further deterioration of the surface. If large areas are observed

to be cracking or breaking up, this may be an indication of a problem with the base material and/or subsoils and would require further investigation to determine the cause and proper method of repair.

B. CONCRETE CURBING

Any soil erosion behind the curbing should be noted, and possible problems such as broken pipes, malfunctioning sprinkler heads, and/or improper grading should be investigated and any necessary repairs made.

C. STORM DRAINAGE SYSTEMS

All storm drainage systems should be routinely inspected to ensure proper operation. Inspections should be scheduled for all facilities after major storms for routine maintenance. In addition, bi-annual structural inspections should be performed. The following are the recommended maintenance schedules for each individual section of a storm system:

1. Catch Basins

All catch basins should be routinely inspected after a major storm to ensure that they are working properly. During these inspections, any sediment buildup or debris should be removed from catch basins to ensure that they continue to function properly.

2. Drainage Swales

The five most prevalent maintenance problems with swales are:

- Weed growth
- Grass maintenance
- Sediment control
- Soil deterioration

- Mosquito control

Drainage swales should be inspected on a routine basis to ensure that they are functioning properly. The grass located within the swales should be mowed on a weekly basis to prevent the accumulation of debris, which may impede the flow of the drainage. The trash racks attached to the outlet structures should be periodically checked and cleaned of debris to prevent blockage. The outlet structures should also be checked for deterioration and/or cracking of concrete.

D. LANDSCAPING

A discussion regarding the preventive maintenance of the landscaped areas of the development would require an entire report. For this reason, it is recommended that a professional service specializing in this area be consulted. It should be noted that landscaping is not included as a reserve schedule item since, with proper maintenance, large-scale replacement should not become necessary.

E. MODULAR INTERLOCKING BLOCK RETAINING WALLS

Retaining wall surfaces should be inspected every spring as part of a preventive maintenance program. Areas should be checked for signs of cracking blocks or missing cap blocks. Seepage is not uncommon at retaining walls and often results in staining of the wall. Additionally, the walls should be checked for soil erosion and/or voids forming at the top and base of the wall.

F. LAWN SPRINKLER SYSTEM

The preventive maintenance of the lawn sprinkler system would require an extensive report concerning the operation and servicing of the control valve, pumps, sprinkler heads, and water lines. For this reason, it is recommended that a professional sprinkler system contractor be consulted to provide the necessary

services to properly maintain the sprinkler system.

G. TOT LOTS

Tot lots should be looked at a minimum of twice a year, with one inspection in the spring and one in the fall. Any splintering or cracking wood should be repaired or replaced as necessary to prevent any injury. Exposed bolts must not have sharp edges. The bolts should not be protruding excessively so as to cause unnecessary injuries.

H. ROOFS • PITCHED

The standard asphalt/fiberglass shingles available on the market today have an expected useful life of approximately 20 years. Proper maintenance in order to achieve this useful life requires periodic inspections to detect the need for repair or changes in the roof surface. In order to reduce maintenance and replacement costs, it is vital to detect problems when they are minor and prevent them from escalating into major problems.

Roof inspections should be conducted at least twice a year. These inspections should preferably occur in the early fall to prepare for winter and in the spring to assess any winter damage and prepare for the hot summer sun. In addition to these seasonal inspections, the roofs should be carefully checked after violent rain or windstorms or nearby fires or after workmen have been on the roof.

The roof inspections should include:

- Examination of exterior walls for settlement.
- Checking interior walls and the underside of roofs for leakage. This is necessary since the majority of roof problems may not be detected by inspecting the outside roof surface.
- Inspection of the roof surface for missing, loose, lifted, cracked or deteriorated shingles.

- A review of the roof drainage, including any change in the roof and the condition and operation of roof drains, gutters, and scuppers.
- Examination of flashed areas. Most water infiltration problems are caused by flashing defects. Lifted, loose, torn, or missing flashing require immediate repair.
- A review of ventilation, since improper ventilation can cause ice damming conditions and accelerates the deterioration of the roof shingle.

I. GUTTERS AND DOWNSPOUTS

The key to maintaining gutters and downspouts is to make sure they are kept clear of debris. A buildup of leaves and other plant material will block downspouts and prevent proper drainage. If this occurs, trapped water could weigh down the gutters and cause them to loosen or fall. Blocked gutters will also overflow along their length, resulting in the washing away of the mulch and/or soils adjacent to the sides of a building, which could result in premature deterioration of a building's exterior finish over time. Ice damming will also be evident in the winter if gutters are not able to drain.

At least twice a year, the gutters should be cleaned and inspected for damage. This should be done in late spring and late fall. Any loose or misaligned gutters should be corrected at this time to prevent further damage. Splash blocks and downspout extension pipes should also be adjusted to prevent erosion and to direct water away from the building.

As the gutters age, the paint coating will oxidize and dull. When this occurs, an aluminum paint product should be used to restore the finish, or the gutters should be power washed to prevent deterioration.

J. SIDING

The proper maintenance of siding is critical to the effort to keep buildings

weather-tight. Properly maintained, siding should last indefinitely. Siding should be regularly inspected for damage caused by gardening equipment, shrubs and tree limbs, improper attachments, abnormal wind conditions, and ice formation. Damaged, missing, or loose siding and trim should be replaced immediately. Lack of maintenance can result in water infiltration problems, as well as a poor appearance.

To maintain appearance and color, siding and trim should be pressure washed on a 3-4 year schedule depending on local conditions.

K. BRICK VENEER

Brick veneer is subject to cracking and loosening from a variety of environmental and construction causes. Veneers on all buildings should be thoroughly inspected in early spring and late fall. The inspections should include checking for chipped, loose, cracked, deteriorated, and missing bricks. Cracked and missing bricks should be replaced. Cracked mortar should be repointed and caulked at intersections. Other surfaces should be repaired where necessary. Any evidence of moisture on an interior wall surface may indicate water absorption through the brick veneer. This condition may be corrected by applying a sealant to the exterior brick face.

Excessive settlement of the foundation may be evidenced by open cracks, especially around window and doorframes. Significant amounts of loose brick or bulging wall areas may indicate structural deficiencies or that large amounts of differential settlement have taken place at the foundation. These conditions should be investigated by a professional and the appropriate action taken to correct uncovered problems.

L. STONE VENEER

Stone veneer is subject to cracking and loosening from a variety of environmental and construction causes. Veneers on all buildings should be thoroughly inspected

in early spring and late fall. The inspections should include checking for chipped, loose, cracked, deteriorated, and missing stones. Cracked and missing stones should be replaced. Cracked mortar should be re-pointed and caulked at intersections. Other surfaces should be repaired where necessary. Any evidence of moisture on an interior wall surface may indicate water absorption through the stone veneer. This condition may be corrected by applying a sealant to the exterior stone face.

Excessive settlement of the foundation may be evidenced by open cracks, especially around window and doorframes. Significant amounts of loose stone or bulging wall areas may indicate structural deficiencies or that large amounts of differential settlement have taken place at the foundation. These conditions should be investigated by a professional and the appropriate action taken to correct uncovered problems.

M. MECHANICAL EQUIPMENT

A well-established plan of preventive maintenance is essential to obtaining the maximum performance and life from your mechanical equipment. All work should be performed by qualified technicians specializing in the particular equipment.

The following guidelines are considered to be minimal procedures for maintaining the equipment:

1. FURNACES

Surrounding Areas:

The flow of combustion and ventilating air must not be obstructed from reaching the furnace. Air openings provided in the casing of the furnace must be kept free of obstructions, which would restrict airflow, thereby affecting efficiency and safe operation of the furnace. Furnaces must have air for proper performance. In addition, warm air furnaces should not be operated in a corrosive atmosphere. Paint solvents, cleaning chemicals,

spray propellants, and bleaches should not be used in the vicinity of the furnace during normal operation.

Thermostat:

The thermostat is the heart of a warm air furnace center. Its operation depends on the surrounding air temperatures; therefore, it should be mounted on a draft-free inside wall for best operation. Because the thermostat is sensitive to heat, devices such as radios, televisions, or lamps should not be placed near it. The thermostat also accumulates lint, which affects its accuracy. For best operation, the thermostat should be cleaned annually.

Filters:

The filters remove dust and debris from the air before it is heated and circulated to the living spaces. Filters must be changed when dirty. Inspections of the filters should be made on a monthly basis.

Blowers:

The blower size and speed determine the air volume delivered by the furnace. The blower bearings are permanently lubricated and usually do not require servicing. Annual cleaning of the blower wheel and housing is recommended for maximum air output. It is recommended to consult a qualified service technician for this procedure.

Burners:

Gas burners do not normally require scheduled servicing; however, accumulation of lint may cause a yellowing flame or delay ignition. Either condition indicates that a service call is required. For best operation, burners must be cleaned annually using a brush and vacuum cleaner. It is recommended to consult a qualified service technician for this procedure.

Flue Pipe:

For best operation, these items should be inspected for signs of corrosion and/or deterioration and cleaned, if necessary, at the beginning of each

heating season by a qualified service technician.

2. WATER HEATERS

The area near the water heater should be kept free of flammable liquids, such as gasoline, paint thinners, adhesives, and other combustible materials. Make certain that the flow of air to the water heater for adequate combustion (proper burner operation) and ventilation is not obstructed.

A water heater's tank can act as a settling basin for solids suspended in the water. It is, therefore, not uncommon for hard water deposits to accumulate in the bottom of the tank. It is suggested that a few quarts of water be drained from the water heater's tank every month to prevent this condition from occurring.

At least once a year, lift and release the level handle on the temperature pressure relief valve (located near the top of the water heater) to make certain that the valve operates freely, and allow several gallons to flush through discharge lines. Make certain that the discharge is directed to an open drain.

Visually inspect the burner annually, while firing, and pilot burner flame with the main burner off. If any unusual burner operation is noted, the water heater should be shut off until professional service assistance can be obtained.

The water heater's internal flue should be inspected annually to be certain that it is clean by removing the draft hood and flue baffle. When reinstalling the flue baffle, make certain that it is hung securely by its hanger at the top of the flue. Remove any scale that may have fallen on the burner or flood shield. Reinstall the draft hood. It is recommended that a professional service be consulted for this procedure.

DISCLOSURES

Ray Engineering, Inc. does not have any other involvement with the association, which could result in actual or perceived conflicts of interest.

During our review of the property, visual review and field measurements, as needed, of each common element was performed. No destructive testing or drawing take-offs were performed.

Material issues which, if not disclosed, would cause a distortion of the association's situation.

Information provided by the official representative of the association regarding financial, physical, quantity, or historical issues will be deemed reliable by the consultant.

The Reserve Analysis will be a reflection of information provided to the consultant and assembled for the association's use, not for the purpose of performing an audit, quality/forensic analyses, or background checks of historical records.

Ray Engineering, Inc. did not perform an audit of the current or past budgets of the association.

Information provided to Ray Engineering, Inc. by the association representative about reserve projects will be considered reliable. Any on-site inspection(s) by Ray Engineering, Inc. should not be considered a project audit or quality inspection.

BIOGRAPHY

ROBERT "NICKO" ROMEO, R.S.
PROJECT ENGINEER

Mr. Romeo has a Bachelor of Science in Mechanical Engineering Technology, Southern Polytechnic State University, Marietta, Georgia, 2016. Mr. Romeo started his internship with Ray Engineering in 2015 through 2017. In 2017, upon obtaining his Bachelor of Science Degree in Mechanical Engineering, he obtained employment as a Project Engineer at Ray Engineering. Mr. Romeo provides consulting services for civil/structural and construction related problems for various condominium, apartment, single-family, residential, and commercial properties, as well as design and specifications for restoration of deficiencies. Mr. Romeo has four years of experience in the preparation of Capital Reserve Analyses.

LIMITATION OF RESPONSIBILITY

The report represents a statement of the physical condition of the common elements of the property based upon our visual observation, professional analysis and judgment. The report applies only to those portions of the property and/or items and equipment which were capable of being visually observed. Unless specifically stated otherwise, no intrusive testing was performed nor were any materials removed or excavations made for further inspection. Drawings and specifications were available only to the extent described in the report.

The following activities are not included in the scope and are excluded from the scope of the reserve analysis described in the National Reserve Study Standards:

- *Utilities* – Operating condition of any underground system or infrastructure; accessing manholes or utility pits; the reserve analysis does not include any infrastructure with an estimated useful life of more than 30 years, unless specified otherwise in the report;

- *Structural Frame and Building Envelope* – Unless specifically defined in the proposal, entering of crawl, attic or confined space areas (however, the field observer will observe conditions to the extent easily visible from the point of access to the crawl or confined space if the access is at the exterior of the building or common space); determination of previous substructure flooding or water penetration unless easily visible or unless such information is provided;

- *Roofs* – Walking on pitched roofs or any roof areas that appear to be unsafe or roofs with no built-in access; determining roofing design criteria;

- *Plumbing* – Verifying the condition of any pipes underground, behind walls or ceilings; determining adequate pressure and flow rate, verifying pipe size or verifying the point of discharge for underground systems;

- *HVAC* – Observation of fire connections, interiors of chimneys, flues or boiler stacks, or tenant owned or tenant maintained equipment;

- *Electrical* – Removal of any electrical panels or device covers, except if removed by building staff; providing common equipment or tenant owned equipment.

- *Vertical Transportation* – Examining of cable, shears, controllers, motors, inspection tags or entering elevator/escalator pits;

- *Life Safety/Fire Protection* – Determining NFPA hazard classifications; classifying or testing fire rating of assemblies;

- Preparing engineering calculations to determine any system's components or equipment's adequacy or compliance with any specific or commonly accepted design requirements or building codes; preparing designs or specifications to remedy any physical deficiencies;

- Reporting on the presence or absence of pests or insects unless evidence of such presence is readily apparent during the field observer's walk-through survey or such information is provided to the Consultant;

- Entering or accessing any area of the property deemed by the engineer to pose a threat to the safety of any individual or to the integrity of the building system or material;

- Providing an opinion on the operation of any system or component that is shut down or not properly operating;

- Evaluating any acoustical or insulating characteristics of the property;

- Providing an opinion on matters regarding security and protection of its occupants or users;

- Providing an environmental assessment or opinion of the presence of any environmental issues such as asbestos, hazardous wastes, toxic materials, radon or the location of designated wetlands, unless specifically defined within the scope of work;

- Any representations regarding the status of ADA Title III Compliance.

The report is not a compliance inspection or certification for past or present governmental codes or regulations of any kind. Any reference made to codes in this report is to assist in identification of a specific problem.

GLOSSARY OF TERMS

Abbreviation	Definition	Abbreviation	Definition
Allow.	Allowance	L.F.	Linear Foot
Avg.	Average	Lg.	Long Length
B.F.	Board Feet	L.S.	Lump Sum
Bit/Bitum.	Bituminous	Maint.	Maintenance
Bldg.	Building	Mat., Mat'l	Material
Brk.	Brick	Max	Maximum
Cal	Calculated	MBF	Thousand Board Feet
C.C.F.	Hundred Cubic Feet	M.C.F.	Thousand Cubic Feet
C.F.	Cubic Feet	Min.	Minimum
C.L.F.	Hundred Linear Feet	Misc.	Miscellaneous
Col.	Column	M.L.F.	Thousand Linear Feet
Conc.	Concrete	M.S.F.	Thousand Square Feet
Cont.	Continuous, continued	M.S.Y.	Thousand Square Yards
C.S.F.	Hundred Square Feet	NA	Not applicable/available
Cu. Ft.	Cubic Feet	No.	Number
C.Y.	Cubic Yard, 27 cubic feet	O.C.	On Center
DHW	Domestic Hot Water	P.E.	Professional Engineer
Diam.	Diameter	Ply.	Plywood
Ea.	Each	Pr.	Pair
Est.	Estimated	PVC	Polyvinyl Chloride
Ext.	Exterior	Pvmt.	Pavement
Fig.	Figure	Quan. Qty.	Quantity
Fin.	Finished	R.C.P.	Reinforced Concrete Pipe
Fixt	Fixture	Reinf.	Reinforced
Flr.	Floor	Req'd	Required
FRP	Fiberglass Reinforced Plastic	Sch., Sched.	Schedule
Ft.	Foot, Feet	S.F.	Square Foot
Galv.	Galvanized	Sq.	Square, 100 Square Feet
Ht.	Height	Std.	Standard
Htrs.	Heaters	Sys.	System
HVAC	Heating, Ventilation, A/C	S.Y.	Square Yard
HW	Hot Water	T&G	Tongue & Groove
In.	Inch	Th, Thk.	Thick
Int.	Interior	Tot.	Total
Inst.	Installation	Unfin.	Unfinished
Insul.	Insulation	V.C.T.	Vinyl Composition Tile
lb.	Pound	Vent.	Ventilator
		Yd.	Yard

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Open Shop Cost Data
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PHOTOGRAPHS

1. View of typical entry monument and signage.

2. View of section of chain link fence that is covered by large amounts of vegetation.

3. View of retention pond (lake).

4. View of swimming pool and deck.

5. View of linear crack along the surface of the swimming pool.

6. View of linear crack at the pool deck surface.

7. View of playground equipment.

8. View of erosion along the walking trail.

9. View of front elevation of the clubhouse.

10. View of rear elevation of the clubhouse.

11. View of patio at the clubhouse.

12. View of pet washing station.

13. View of main event room at the clubhouse.

14. View of pavilion.

15. View of mailbox kiosk.

16. View of cracked stone at column of mail kiosk.

17. View of typical entry gate.