STRUCTURAL INTEGRITY RESERVE STUDY

FOR

INTERCOASTAL CONDOMINIUMS

19727 GULF BLVD
INDIAN SHORES, FLORIDA 33785

PREPARED FOR:

THE INTERCOASTAL CONDOMINIUM ASSOCIATION, INC.
C/O
AMERI-TECH COMMUNITY MANAGEMENT, INC.
24701 US HIGHWAY 19N, SUITE 102
CLEARWATER, FLORIDA 33763

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RAY ENGINEERING, INC.
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JANUARY 2025
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I. STRUCTURAL INTEGRITY RESERVE STUDY DETERMINATION

A. METHODOLOGY AND ASSUMPTIONS

A Structural Integrity Reserve Study (SIRS) is a report giving an estimate of the amount of money that must be put aside to replace or restore structural elements of the building(s) that will require replacement before the community's use expires. Per the Florida Statute Title XXXIII, Chapter 553, Section 899 and in conformance with the scope of work specified in SB 4-D & SB 154 – Building Safety, Dated May 26, 2022, and all other executed amendments to SB 4-D & SB 154, revisions Dated May 04, 2023, and, signed by the governor on June 09, 2023, passed by the state as per the date of this report, this includes the following components: Roof, load bearing walls and other primary structural members, fireproofing & fire safety, common area plumbing, common area electrical systems, exterior painting & waterproofing, and windows/exterior doors if the Association is responsible, as well as any other items that have deferred maintenance expense or replacement cost that exceeds $10,000 and the failure to replace or maintain such time negatively affects the previously listed components.

The commonly accepted guidelines as established by the previously mentioned 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 SIRS elements as they reach the end of their useful lives or are experiencing deferred maintenance. In order to ensure that this schedule remains current, a reassessment of the existing condition and replacement costs for each item is necessary at regular intervals as recommended within the report. Updating 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 SIRS component that will require repair or 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 Structural Integrity Reserve Study 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

The SIRS inventory was established based on information provided by the association's representative, field measurements, and/or drawing take-offs.

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.

The 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 that are used as a basis for this report are calculated from field measurements and drawings that 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 the 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 SIRS.

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 2024.

Annual Reserve Funding

The reserve requirement present value was converted to the future value for the time in which each replacement will occur. A 3.5% 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

Intercoastal Condominiums at Indian Shores is a condominium complex located off Gulf Boulevard in Indian Shores, Florida. The property includes one (1) four-story building containing a total of 20 units that was constructed in 1981. The foundation consisted of structural timber piers driven into the ground with custom metal/through bolted connections connecting the top of the timber piles to the bottom of the standard framed four-story structural system. It is our understanding that the windows are not COA responsibility while the doors are the responsibility of the COA.

The significant issues we observed during the inspection include the following:

- Foundation Connections: Several of the custom structural steel plate/through bolted connections located at the top of the driven timber piles/piers visibly appeared to be corroded. It is our opinion that these connectors need to be repaired and/or replaced in accordance with the *Phase I* report issued by *Connelly* at the earliest possible time.
- Rafter/Truss Base Connections: Several of the metal clips/connectors observed along the base of several rafter/truss base connection locations visibly appeared to be corroded. It is our opinion that these connectors need to be repaired and/or replaced in accordance with the *Phase I* report issued by *Connelly* at the earliest possible time.

Restoration projects reportedly occurred to the roof/siding in 2021 and 2024, respectively. The corrosion noted at base connections listed above were the most pressing issues observed at the time of our site visit.

This SIRS is prepared for the fiscal year starting January 1, 2025. It is our recommendation that the annual contribution be the following: $32,500 through the entirety of the reserve, which is equivalent to an average contribution of $1,625 per year, per residential unit. For a review of the funding requirements for the next 30 years, please refer to the "Cost and Funding Recap" included as a part of this report.

D. REPLACEMENT RESERVE REQUIREMENTS

SCHEDULE I

Exterior/Interior Building

SCHEDULE II

Electrical /Plumbing/Fire Safety

YEAR-BY-YEAR FUNDING RECAP - ALL ITEMS

COST AND FUNDING RECAP

ITEMIZED PROJECT COSTS BY YEAR

RAY ENGINEERING, INC.
CONSULTING ENGINEERS

PROJECT NAME	INTERCOASTAL CONDOMINIUMS	
INFLATION RATE	3.50%	
YIELD ON RESERVE FUNDS	0.00%	
BEGINNING YEAR OF FUNDING	2025	
PLANNING HORIZON	30	yrs

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RAY ENGINEERING, INC.
Consulting Engineers

RESERVE EXPENDITURES

	COMPONENT DESCRIPTION/INVENTORY	UNITS	UNIT QUANTITY	UNIT COST	TOTAL COST	ESTIMATED USEFUL LIFE	ESTIMATED REMAINING LIFE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
	EXTERIOR/INTERIOR BUILDING MAINTENANCE ITEMS																							
1	ASPHALT ROOFS - REPLACE	S.F.	16000	$6	$96,000.00	25	21																	
2	MISC. ROOF AND SIDING REPAIRS - AS NEEDED	ALLOW.	1	$25,000	$25,000.00	10	2			$26,781										$37,777				
3	VINYL SIDING - REPLACE	S.F.	12150	$5	$60,750.00	25	23																	
4	ASSOCIATION DOORS - REPLACE	EA.	10	$3,500	$35,000.00	25	12													$52,887				
5	BALCONY REPAIRS - AS NEEDED	ALLOW.	1	$15,000	$15,000.00	3	0	$15,000			$16,631			$18,439			$20,443			$22,666			$25,130	
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	TOTAL EXTERIOR/INTERIOR BUILDING MAINTENANCE ITEMS							**$15,000**	**$0**	**$26,781**	**$16,631**	**$0**	**$0**	**$18,439**	**$0**	**$0**	**$20,443**	**$0**	**$0**	**$113,330**	**$0**	**$0**	**$25,130**	**$0**

RAY ENGINEERING, INC.
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RESERVE EXPENDITURES

	COMPONENT DESCRIPTION/INVENTORY	UNITS	UNIT QUANTITY	UNIT COST	TOTAL COST	ESTIMATED USEFUL LIFE	ESTIMATED REMAINING LIFE	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	30 YR TOTAL
	EXTERIOR/INTERIOR BUILDING MAINTENANCE ITEMS																				
1	ASPHALT ROOFS - REPLACE	S.F.	16000	$6	$96,000.00	25	21					$197,705									**$197,705**
2	MISC. ROOF AND SIDING REPAIRS - AS NEEDED	ALLOW.	1	$25,000	$25,000.00	10	2						$53,288								**$117,845**
3	VINYL SIDING - REPLACE	S.F.	12150	$5	$60,750.00	25	23							$134,021							**$134,021**
4	ASSOCIATION DOORS - REPLACE	EA.	10	$3,500	$35,000.00	25	12														**$52,887**
5	BALCONY REPAIRS - AS NEEDED	ALLOW.	1	$15,000	$15,000.00	3	0		$27,862			$30,891			$34,250			$37,974			**$249,287**
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	TOTAL EXTERIOR/INTERIOR BUILDING MAINTENANCE ITEMS							**$0**	**$27,862**	**$0**	**$0**	**$228,597**	**$53,288**	**$134,021**	**$34,250**	**$0**	**$0**	**$37,974**	**$0**	**$0**	**$751,746**

TOTAL EXTERIOR/INTERIOR BUILDING MAINTENANCE ITEMS $0 $27,862 $0 $0 $228,597 $53,288 $134,021 $34,250 $0 $0 $37,974 $0 $0 $751,746

RAY ENGINEERING, INC.
Consulting Engineers

RESERVE EXPENDITURES

	COMPONENT DESCRIPTION/INVENTORY	UNITS	UNIT QUANTITY	UNIT COST	TOTAL COST	ESTIMATED USEFUL LIFE	ESTIMATED REMAINING LIFE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
	ELECTRICAL/MECHANICAL/PLUMBING ITEMS																							
1	ELECTRICAL PANELBOARDS AND SWITHCES - REPLACE	EA.	1	$14,500	$14,500.00	30	17																	
2	LIFE SAFETY EQUIPMENT	S.F.	33750	$1	$33,750.00	25	11												$49,274					
3	FIRE SPRINKLERS - REPLACE	S.F.	33750	$3	$101,250.00	45	2			$108,462														
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	TOTAL ELECTRICAL/MECHANICAL/PLUMBING ITEMS							**$0**	**$0**	**$108,462**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$49,274**	**$0**	**$0**	**$0**	**$0**	**$0**
	TOTAL							**$15,000**	**$0**	**$135,242**	**$16,631**	**$0**	**$0**	**$18,439**	**$0**	**$0**	**$20,443**	**$0**	**$49,274**	**$113,330**	**$0**	**$0**	**$25,130**	**$0**

RAY ENGINEERING, INC.
Consulting Engineers

RESERVE EXPENDITURES

	COMPONENT DESCRIPTION/INVENTORY	UNITS	UNIT QUANTITY	UNIT COST	TOTAL COST	ESTIMATED USEFUL LIFE	ESTIMATED REMAINING LIFE	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	30 YR TOTAL
	ELECTRICAL/MECHANICAL/PLUMBING ITEMS																				
1	ELECTRICAL PANELBOARDS AND SWITHCES - REPLACE	EA.	1	$14,500	$14,500.00	30	17	$26,023													**$26,023**
2	LIFE SAFETY EQUIPMENT	S.F.	33750	$1	$33,750.00	25	11														**$49,274**
3	FIRE SPRINKLERS - REPLACE	S.F.	33750	$3	$101,250.00	45	2														**$108,462**
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	TOTAL ELECTRICAL/MECHANICAL/PLUMBING ITEMS							**$26,023**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$183,758**
	TOTAL							**$26,023**	**$27,862**	**$0**	**$0**	**$228,597**	**$53,288**	**$134,021**	**$34,250**	**$0**	**$0**	**$37,974**	**$0**	**$0**	**$935,504**

	FULLY FUNDED BALANCE EXTERIOR/INTERIOR BUILDING MAINTENANCE ITEMS DESCRIPTION SCHEDULE II	First Replacement			Second Replacement			Third Replacement			Fourth Replacement			Fifth Replacement		
		Yr Replaced	Adjusted Cost if Inflation is 3.50%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.50%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.50%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.50%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.50%	Annual Funding Thru Yr Replaced
1	ASPHALT ROOFS - REPLACE	2046	$197,705	$8987	2071			2096			2121			2146		
2	MISC. ROOF AND SIDING REPAIRS - AS NEEDED	2027	$26,781	$8927	2037	$37,777	$3778	2047	$53,288	$5329	2057			2067		
3	VINYL SIDING - REPLACE	2048	$134,021	$5584	2073			2098			2123			2148		
4	ASSOCIATION DOORS - REPLACE	2037	$52,887	$4068	2062			2087			2112			2137		
5	BALCONY REPAIRS - AS NEEDED	2025	$15,000	$15000	2028	$16,631	$5544	2031	$18,439	$6146	2034	$20,443	$6814	2037	$22,666	$7555
6		2025	0		2025	0		2025	0		2025	0		2025	0	
7		2025	0		2025	0		2025	0		2025	0		2025	0	
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39		2025	0		2025	0		2025	0		2025	0		2025	0	
40		2025	0		2025	0		2025	0		2025	0		2025	0	

	FULLY FUNDED BALANCE ELECTRICAL/MECHANICAL/PLUMBING MAINTENANCE ITEMS DESCRIPTION SCHEDULE III	First Replacement			Second Replacement			Third Replacement			Fourth Replacement			Fifth Replacement		
		Yr Replaced	Adjusted Cost if Inflation is 3.50%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.50%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.50%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.50%	Annual Funding Thru Yr Replaced	Yr Replaced	Adjusted Cost if Inflation is 3.50%	Annual Funding Thru Yr Replaced
1	ELECTRICAL PANELBOARDS AND SWITHCES - REPLACE	2042	$26,023	$1446	2072			2102			2132			2162		
2	LIFE SAFETY EQUIPMENT	2036	$49,274	$4106	2061			2086			2111			2136		
3	FIRE SPRINKLERS - REPLACE	2027	$108,462	$36154	2072			2117			2162			2207		
4		2025	0		2025	0		2025	0		2025	0		2025	0	
5		2025	0		2025	0		2025	0		2025	0		2025	0	
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INTERCOASTAL CONDOMINIUMS
COST AND FUNDING RECAP
EXISTING FUNDING

	2025 1	2026 2	2027 3	2028 4	2029 5	2030 6	2031 7	2032 8	2033 9	2034 10	2035 11	2036 12	2037 13	2038 14	2039 15
Beginning Reserve Fund Balance	$87,953	$105,453	$137,953	$35,211	$51,080	$83,580	$116,080	$130,141	$162,641	$195,141	$207,198	$239,698	$222,924	$142,094	$174,594
Recommended Annual Funding	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500
Annual Interest	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capital Expenditures	$15,000	$0	$135,242	$16,631	$0	$0	$18,439	$0	$0	$20,443	$0	$49,274	$113,330	$0	$0
Ending Reserve Balance	$105,453	$137,953	$35,211	$51,080	$83,580	$116,080	$130,141	$162,641	$195,141	$207,198	$239,698	$222,924	$142,094	$174,594	$207,094

Inflation Rate: 3.50%
Interest Rate: 0.00%

TOTAL UNITS: 20

ANNUAL CONTRIBUTION PER UNIT	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625
MONTHLY CONTRIBUTION PER UNIT	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42

INTERCOASTAL CONDOMINIUMS
COST AND FUNDING RECAP
EXISTING FUNDING

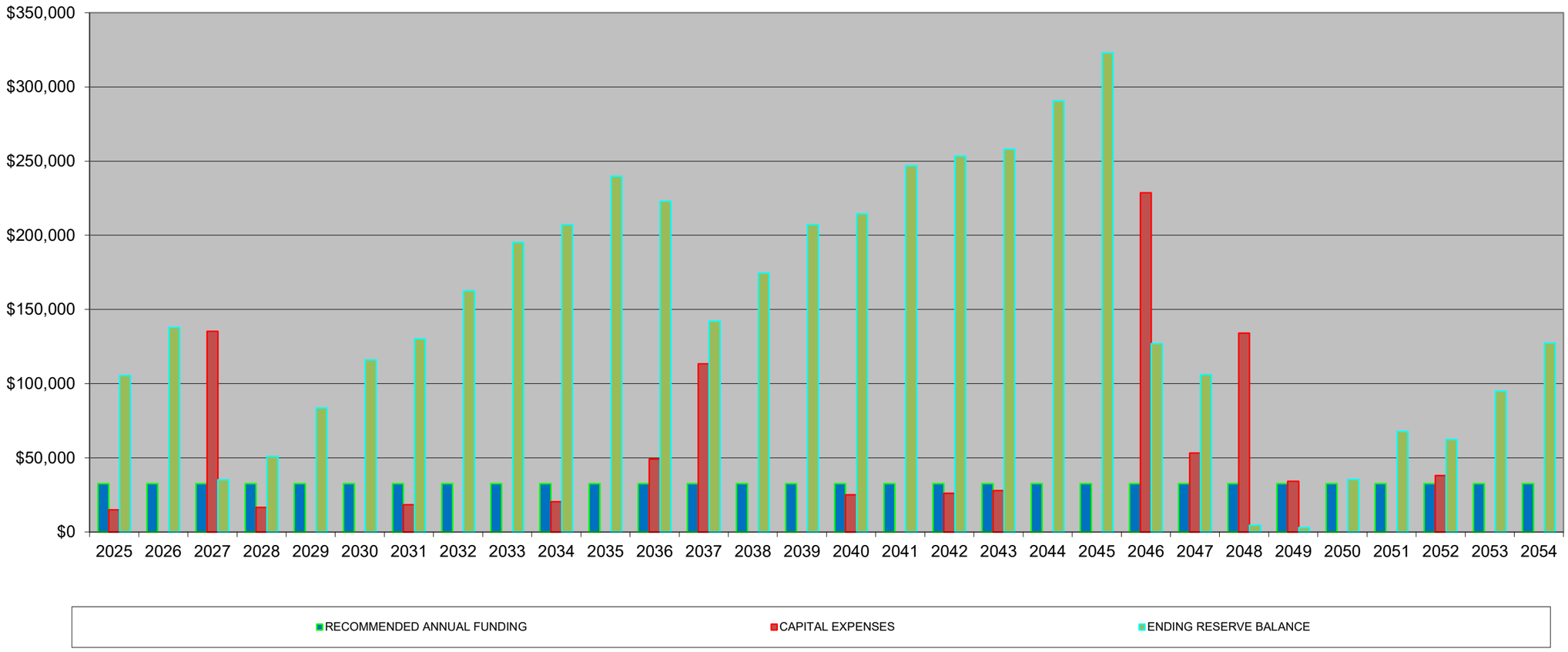
	2040 16	2041 17	2042 18	2043 19	2044 20	2045 21	2046 22	2047 23	2048 24	2049 25	2050 26	2051 27	2052 28	2053 29	2054 30
Beginning Reserve Fund Balance	$207,094	$214,463	$246,963	$253,441	$258,078	$290,578	$323,078	$126,981	$106,194	$4,672	$2,922	$35,422	$67,922	$62,449	$94,949
Recommended Annual Funding	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500	$32,500
Annual Interest	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capital Expenditures	$25,130	$0	$26,023	$27,862	$0	$0	$228,597	$53,288	$134,021	$34,250	$0	$0	$37,974	$0	$0
Ending Reserve Balance	$214,463	$246,963	$253,441	$258,078	$290,578	$323,078	$126,981	$106,194	$4,672	$2,922	$35,422	$67,922	$62,449	$94,949	$127,449

Inflation Rate: 3.50%
Interest Rate: 0.00%

TOTAL UNITS: 20

ANNUAL CONTRIBUTION PER UNIT	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625
MONTHLY CONTRIBUTION PER UNIT	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42	$135.42

PROJECTED CASH FLOW - RECOMMENDED FUNDING



INTERCOASTAL CONDOMINIUMS
ITEMIZED PROJECTED COST BY YEAR
(Excluding Capital Improvements)

BALCONY REPAIRS - AS NEEDED	$15,000
Total 2025 Expenditures	**$15,000**
MISC. ROOF AND SIDING REPAIRS - AS NEEDED	$26,781
FIRE SPRINKLERS - REPLACE	$108,462
Total 2027 Expenditures	**$135,242**
BALCONY REPAIRS - AS NEEDED	$16,631
Total 2028 Expenditures	**$16,631**
BALCONY REPAIRS - AS NEEDED	$18,439
Total 2031 Expenditures	**$18,439**
BALCONY REPAIRS - AS NEEDED	$20,443
Total 2034 Expenditures	**$20,443**
LIFE SAFETY EQUIPMENT	$49,274
Total 2036 Expenditures	**$49,274**
MISC. ROOF AND SIDING REPAIRS - AS NEEDED	$37,777
ASSOCIATION DOORS - REPLACE	$52,887
BALCONY REPAIRS - AS NEEDED	$22,666
Total 2037 Expenditures	**$113,330**
BALCONY REPAIRS - AS NEEDED	$25,130
Total 2040 Expenditures	**$25,130**
ELECTRICAL PANELBOARDS AND SWITHCES - REPLACE	$26,023
Total 2042 Expenditures	**$26,023**
BALCONY REPAIRS - AS NEEDED	$27,862
Total 2043 Expenditures	**$27,862**
ASPHALT ROOFS - REPLACE	$197,705
BALCONY REPAIRS - AS NEEDED	$30,891
Total 2046 Expenditures	**$228,597**
MISC. ROOF AND SIDING REPAIRS - AS NEEDED	$53,288
Total 2047 Expenditures	**$53,288**
VINYL SIDING - REPLACE	$134,021
Total 2048 Expenditures	**$134,021**
BALCONY REPAIRS - AS NEEDED	$34,250
Total 2049 Expenditures	**$34,250**
BALCONY REPAIRS - AS NEEDED	$37,974
Total 2052 Expenditures	**$37,974**
Total Expenditures	**$935,504**

II. RESERVE CASH FLOW ANALYSIS

A. INTRODUCTION

The enclosed chart and graph contain a 30-year cash flow projection of the reserve requirements for the Association. The budget should be adjusted at the end of the 30-year period to readjust for changes in the 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 30-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 remaining useful service 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 3.5% annual compounded inflation rate. The future cost was calculated for the projected time when replacements will be required.

The future cost was then broken down into annual installments while still considering the 3.5% 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

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 contributions due to the fact that even a minor change in the estimated useful service 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 ensure 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 that 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.

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 were performed. No destructive testing or drawing take-offs were performed.

Material issues that, 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 SIRS 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

STEVEN W. RAY, P.E., R.S.
PROFESSIONAL ENGINEER

Mr. Ray is owner and president of Ray Engineering, Inc. He started Ray Engineering in 1990 and has been in business for 35 years. He is a licensed civil/structural engineer and is registered in 14 states. Mr. Ray has over 40 years' experience in the engineering field and has provided consulting services all over the United States. In 1993, Ray Engineering began preparing reserve studies and since then, has prepared thousands of reserve studies in the southeast. Mr. Ray obtained his Reserve Specialist designation from CAI along with three other engineers at Ray Engineering. He also provides forensic engineering services and expert witness and testimony in litigation involving structural and construction related incidents. Ray Engineering has been a member of CAI since 1993 and has been a Gold Sponsor since 1998.

LIMITATION OF RESPONSIBILITY

The report represents a statement of the physical condition of the common elements of the property based on our visual observation, professional analysis, and judgment. The report applies only to those portions of the property and/or items and equipment that 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 SIRS described in the National Reserve Study Standards:

- *Utilities* – The operating condition of any underground system or infrastructure; accessing manholes or utility pits; the SIRS 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 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 the 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 the 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

BIBLIOGRAPHY

Architectural Drawings
by N/A

Declaration of Covenants, Conditions, and Restrictions
by N/A

Site Work Cost Data
by R.S. Means Company, Inc. & Historical Data

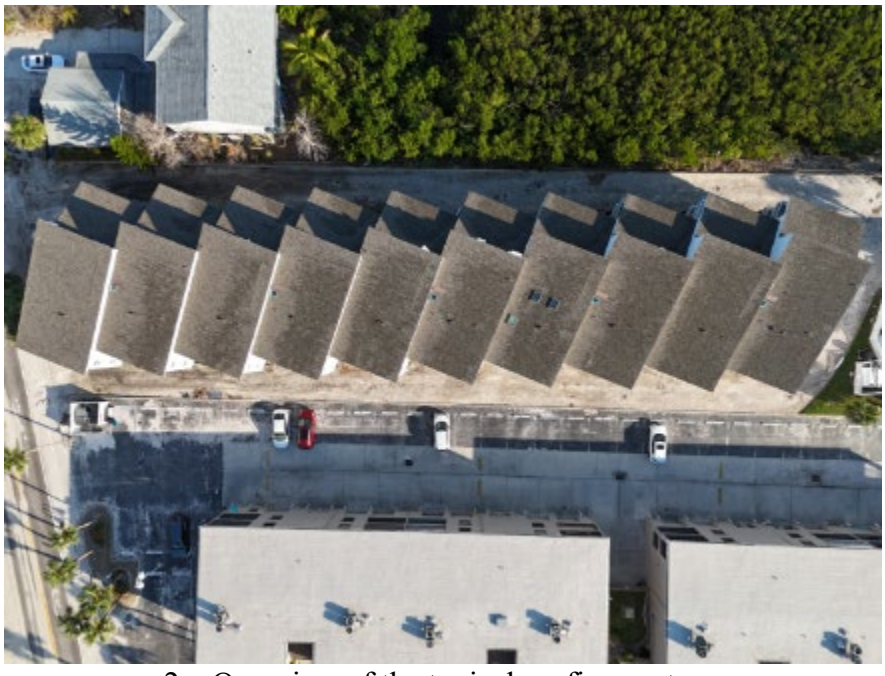
Mechanical Cost Data
by R.S. Means Company, Inc. & Historical Data

Electrical Cost Data
by R.S. Means Company, Inc. & Historical Data

Open Shop Cost Data
by R.S. Means Company, Inc. & Historical Data

PHOTOGRAPHS

1. View of the subject association building.



2. Overview of the typical roofing system.

3. View of south elevation.

4. View of north elevation.

5. Partial view of typical balcony.

6. View of electrical panel.

7. View of fire control system.

8. View of fire control system.

9. View of typical fire sprinkler piping.