

# Joseph D. Hiller Engineering, LLC

## Structural Engineering

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# Structural Integrity Reserve Study



## Admiralty Club Condominium

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**Inspection Date:**

July 5, 2023

**Prepared By:**

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Admiralty Club Condo Association, Inc.  
New Smyrna Beach, Volusia County, FL

Dear Board of Directors of Admiralty Club Condo Association, Inc.:

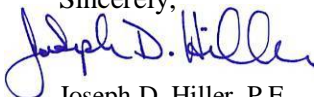
At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a Structural Integrity Reserve Study of Admiralty Club Condominium in Port Orange, FL, and submit our findings in this report. The effective date of this study is the date of our visual noninvasive inspection, October 24, 2024.

The Structural Integrity Reserve Study fulfills the requirement of a "Structural Integrity Reserve Study" as required per F.S. 718.112(g).

Our observations were limited to visible surfaces of accessible exterior building components and included visual observations of accessible building components referenced specifically herein. Our observations were of a general nature intended to identify significant deficiencies, problems or ongoing maintenance concerns that are related to the building structures and are visible at the time of our observations. Neither our observations nor this report is intended to hidden defects, mechanical, electrical, architectural features, code compliance or other areas of the building not specifically mentioned. The intent of our review was to provide our professional opinion of the existing condition of the identified components.

Please let me know if you have any questions or concerns regarding this report.

Sincerely,



Joseph D. Hiller, P.E.  
Florida PE Lic# 74583



# SIRS Study Background

The purpose of this report is to summarize our observations and provide our opinion of recommendations, as it related to F.S.718.112(g) - Structural Integrity Reserve Study (SIRS), of the association-owned common elements, components, or items. Specifically, as they relate to the *"structural integrity and safety of the building."*

The purpose of a reserve study is best defined as *"a budget planning tool while identifies the components that a community association is responsible to maintain or replace, the current status of the reserve fund, and a stable and equitable funding plan to offset the anticipate future major common area expenditures."*

Generally, reserve studies applied to an association's capital expenditures and deferred maintenance expenses for components which required timely and inevitable replacement / maintenance required to support proper function of an association's common elements. Typically, these included the minimum items as defined by F.S. 718 and any other items defined in the association By-Laws. Other items were included at the discretion of the professional or association. However, funding could be waived by a majority vote of the association and reserve accounts were not required to be maintained.

Due to the harrowing events at the Champlain Towers of Surfside Florida on June 24, 2021, the Florida Legislature has elected to mandate the funding of reserve accounts for most applicable associations. The required funding is defined by the Florida Statute which includes a general outline of the relevant components. Ultimately, it has become the responsibility of the professional to reasonably define the relevant components and recommend a comprehensive funding plan which the association must adopt.

# Description of Admiralty Club Condominium

Based on the Volusia County Property Appraisers, Admiralty Club Condominium is located within the limits of Port Orange, FL, zoned as residential with an approximate land area of 90,800 square feet. The condominium is bound by Peninsula Dr on the east and the Halifax River on the west.

The parcel contains: one 8-story building, with 101 units, parking lot, 1 pool area, a sun deck/dock, and other common areas. The condominium was built in 1974, making it approximately 50 years old.



# Manner and Type of Inspection

Observations were made on the following date(s): 7/1/2023, 7/5/2023, 11/2/2023

Observations were visual in nature, only. No destructive observations were made, nor were any elements moved or altered. Elements not observed were either out of the scope of this resort or not accessible. Observations may have included qualitative soundings at select elements to investigate for delamination and spalling that may not be observed visually or to assess extent thereof.

For the purpose of determining which components to include and exclude, we use CAI's three-part test:

1. The association has the obligation to maintain or replace the existing element.
2. The need schedule for this project can be reasonably anticipated.
3. The total cost for the project is material to the association, can be reasonably estimated, and includes all direct and related costs.

This three-part test limits components to major and predictable expense. Hiller Engineering does not include unpredictable expenses such as damage due to fire, flood, or earthquakes.

## Inclusions:

The following elements, components, and items are generally observed, if applicable:

- Building Envelope
  - Roof Systems
  - Painting and Weatherproofing
  - Common Windows
  - Common Doors
- Walkways and Balconies
  - Railings
- Fire Suppression
  - Fire Pump
  - Fire Panel
- Plumbing
  - Backflow Preventer
  - Potable Water Pump
- Mechanical
  - Common AC Condensers
  - Common AC Air Handlers
- Electrical
  - Generator
  - Transfer Switch

## Exclusions:

The following elements, components, and items are generally observed, if applicable:

- Grounds
  - Pavement
  - Irrigation Well Pump & Tank
  - Lift Station Pumps
  - Common Doors
  - Monuments
  - Storage She
  - Perimeter Fence
- Clubhouses
  - Building Envelope
  - Walkways & Balconies
  - Conveying Equipment
  - Fire Suppression
  - Plumbing
  - Mechanical

- Electrical
- Equipment
- Specialties
- Furnishings
- Pools & Decks
  - Pumps
  - Filters
  - Heaters
  - Deck
- Furnishings
- Carports
  - Roof System
  - Painting & Weatherproofing
- Bay/Beach
  - Docks
  - Seawalls
  - Retaining Walls

### **Terminology:**

#### Physical Analysis:

In order to accurately and consistently categorize component conditions, KEG utilizes an adapted scale developed by the American Society of Civil Engineers (ASCE) for the purposes of this report.

- Very Good - Fit for Purpose: The infrastructure in the system or network is generally in excellent condition, typically new or recently rehabilitated, and meets capacity needs for the future. Few, if any, elements show signs of general deterioration that require attention.
- Good - Adequate for Now: The infrastructure in the system or network is in good to excellent condition; some elements show signs of general deterioration. Safe and reliable, with minimal capacity issues and minimal risk.
- Fair - Mediocre, Requires Attention: The infrastructure in the system or network is in fair to good condition; it shows general signs of deterioration and requires attention. Some elements exhibit significant deficiencies in conditions and functionality, with increasing vulnerability to risk.
- Poor - At Risk: The infrastructure is in poor to fair condition and mostly below standard, with many elements approaching the end of their service life. A large portion of the system exhibits significant deterioration. Condition and capacity are of serious concern with a strong risk of failure.
- Very Poor - Failing/Critical, Unfit for Purpose: The infrastructure in the system is in unacceptable condition with widespread advanced signs of deterioration. Many of the components of the system exhibit signs of imminent failure.

# Budget and Reserve Account Spreadsheet



<b>Joseph D. Hiller Engineering, LLC</b>						Dec.2024.
<b>Structural Engineering</b>						
P.O. Box 290855, Port Orange, FL 32129						
			Phone # (386) 248-1700			
E-mail: hillereengineering@gmail.com						<b>UL</b> = Useful Life
						<b>RUL</b> = Remaining
Job Site Address:		<b>Admiralty Club Condominium</b>				Useful Life
		3606 S Peninsula Dr				<b>FFB</b> = Fully Funded
		Port Orange, FL 32127				Balance (where reserve
						should currently be)
<b>RESERVE EXPENDITURES</b>						
<b>Line Item</b>	<b>Installed</b>	<b>UL</b>	<b>RUL</b>	<b>Cost</b>	<b>FFB</b>	<b>NOTES</b>
<b>ROOF</b>						
Roof System, TPO	2017	30	23	\$84,000	\$20,160	
<b>LOAD BEARING STRUCTURE</b>						
Walls, Concrete	1974	100	50			* over 25 ul
Balconies, Concrete	2022	50	48			* over 25 ul
Walkways, Concrete	2022	50	48			* over 25 ul
Railings	1974	50	0	\$60,000	\$60,000	* in progress
<b>PLUMBING</b>						
Pumps	2014	60	50			* over 25 ul
Pipes	1974	45	-5	\$120,000	\$120,000	**
<b>ELECTRICAL SYSTEMS</b>						
Air Handling & Condensing	2021	10	7	\$21,000	\$6,300	
Elevator Control Systems	2023	20	19	\$40,000	\$2,000	
<b>WATERPROOFING &amp; EXT. PAINT</b>						
Balconies/Walkways, Waterproofing	2022	10	8	\$200,000	\$40,000	
Walls, Stucco, Paint	2022	10	8	\$167,000	\$33,400	
<b>WINDOWS &amp; EXT. DOORS</b>						
Windows, Doors (Common)	2020	20	16	\$100,000	\$20,000	
<b>ITEMS EXCEEDING \$10,000</b>						
Pool, Resurfacing/Pool Deck	2006	30	12	\$90,000	\$54,000	
Sun Deck/Rear Sidewalk	2018	15	9	\$18,000	\$7,200	
Seawall/Dock	2004	30	10	\$60,000	\$39,600	
*Over 25 ul left	Deferred Maintenance					
**	Assuming pipes are original to structure					

# Visual Inspection Categories

## Roof

- Component Condition: Good
- Observations: The roofing system consists of a thermoplastic polyolefin (TPO) flat roofing membrane with parapet walls at the perimeter, metal coping and metal flashings. The roof has a remaining useful life of approximately 20 years.
- Recommendations: To maintain the quality of the structure, replace the roof in 20 years upon reaching the end of its useful life. Fix or replace rusted AC stands and anchors, damaged metal flashings, and coping. Maintain regular inspection and clean roof drains to ensure longevity.



# Load Bearing Structure

## WALKWAYS

- Component Condition: Good
- Observations: The walkways appear to be in good condition. The walkways are concrete on all floors.
- Recommendations: Repair cracks and spalls in the walkways beams. Regularly inspect railing posts.



## BALCONIES

- Component Condition: Good
- Observations: The balconies appear to be in generally good condition. A balcony inspection was performed in conjunction with the SIRS visual inspection. Sounding tests were conducted and some areas indicating delamination, spalling, and cracking were identified.
- Recommendations: Repair cracks and delamination of stucco. Fill holes and repair patches where coating/waterproofing is missing to reduce moisture intrusion.



## RAILINGS

- Component Condition: Poor-Fair
- Observations: Concrete Casted Railings are at end of useful life, some near failure. Repair and replacement efforts are underway at this time.
- Recommendations: Repair and replace railings.

# Fireproofing and Fire Protection

## **FIRE SPRINKLERS**

- Component Condition: Good
- Observations: Located only at trash chute
- Recommendations: Maintain yearly inspection schedule

# Plumbing

- Component Condition: Good
- Observations: The plumbing system consists of copper pipes, estimated to be approximately 50 years old. Maintenance inspection was performed in 2021 revealing poor to fair conditions. Some pipes may be near end of life and will require extensive cleaning, maintenance and/or replacement.
- Recommendations: Perform drain flush and adhere to regular maintenance schedule.

# Mechanical Systems

## COMMON AC

- Component Condition: Good
- Recommendations: Regular maintenance

## ELEVATOR CONTROL SYSTEM

- Component Condition: Good
- Observations: Several components were replaced in 2022 and 2023 and software upgraded.
- Recommendations: Maintain regular quarterly inspections and maintenance.

# Electrical Systems

- Component Condition: Good
- Observations: The electrical systems panels are in good condition and properly labeled.
- Recommendations: Follow the maintenance schedule diligently.

# Waterproofing and Exterior Painting

- Component Condition: Good
- Observations: The exterior painting and stucco of the building are in generally good condition. Paint bubbles were observed in some areas. There does not appear to be damage behind the paint in post spots, though this makes the area vulnerable to moisture.
- Recommendations: Repair paint to prevent water infiltration and protect the building envelope.



# Windows and Exterior Doors

## WINDOWS (COMMON)

- Component Condition: Good
- Observations: Windows are in good condition, installed 2017
- Recommendations: Regularly inspect for signs of water intrusion



## DOORS (COMMON)

- Component Condition: Good
- Observations: Replaced 2020
- Recommendations: Regularly inspect for signs of water intrusion





# Items Exceeding \$10,000

## **POOL RESURFACING/ POOL DECK**

- Component Condition: Good
- Observations: Pool surface and pool deck appear to be in good condition.
- Recommendations: Maintenance with regular cleaning and repair cracks immediately should they appear.

## **SUN DECK/REAR SIDEWALK**

- Component Condition: Good
- Observations: Some cracks and settlement
- Recommendations: Repair cracks as needed

## **SEAWALL/ DOCK**

- Component Condition: Fair
- Observations: Heavy deterioration of the seawall cap, spalling and cracked concrete with rusted steel reinforcement.
- Recommendations: Will most likely need to repair earlier than the 10 year remaining useful life.

# Conclusion

This Structural Integrity Reserve Study (SIRS) for Admiralty Club Condominium, based on our visual inspection on July 1, 2023, July 5, 2023, and November 2, 2023, indicates that the building's essential systems are generally in good condition, with some areas requiring attention over the next several years. The condominium, built in 1974, is showing typical signs of aging, but there are no major structural or safety concerns that pose an imminent risk to the building's residents or visitors. Key areas of concern, such as balconies, railings, and certain exterior elements, are recommended for ongoing monitoring and timely repairs to maintain the building's integrity and safety.

## Summary of Findings:

- **Roof:** In good condition with about 20 years of useful life remaining. Regular maintenance and eventual replacement are recommended.
- **Walkways and Balconies:** Generally in good condition, but some areas show signs of cracking, delamination, and spalling. Repairs to these areas, especially balconies, are advised.
- **Railings:** In poor-fair condition and nearing the end of their useful life, with repair and replacement efforts currently underway.
- **Plumbing:** Copper pipes are approximately 50 years old and may need maintenance or replacement soon. Regular flushing and inspection are recommended.
- **Mechanical Systems:** In good condition, with recent updates to the AC and elevator control systems. Continued regular maintenance is needed.
- **Electrical Systems:** In good condition and well-maintained.
- **Exterior:** The building's exterior paint and waterproofing are generally in good shape, though some areas with bubbling paint need attention to prevent water intrusion.
- **Seawall/Dock:** The seawall shows significant deterioration and will likely need repairs sooner than anticipated.

This report serves as a budgeting tool to aid in financial planning for necessary future repairs and maintenance. Ensuring adequate funding for these key components will support the ongoing safety and integrity of the Beach Club Condominium.

### **Funding Recommendations:**

This is a limited reserve study of main structural components as required by Florida statutes. To ensure the continued safety and operational integrity of Admiralty Club Condominium, we recommend establishing a comprehensive reserve funding plan with a reserve study specialist.

The components with an immediate or near-term need for attention (such as balconies, railings, and waterproof coatings) should be prioritized for funding in the next few years. Long-term projects, such as roof replacement, should be budgeted for in 15-20 years.

It is essential for the association to establish and regularly update a capital reserve fund to manage the costs associated with these components and to ensure that all necessary maintenance and replacements are completed in a timely manner.

Please feel free to reach out if you have any further questions or need additional clarification on any part of this report.