

CA 8539

STRUCTURAL ENGINEERING PROFESSIONALS, INC.

Structural, Mechanical & Civil Engineering Consultants

Phase 1 Milestone Report

For

Admiral Condominium



8750 South Ocean Drive Jensen Beach, FL 34957

April 24th, 2023



Prepared By: David T Colston, PE, SI FL 55501

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STRUCTURAL ENGINEERING PROFESSIONALS, INC.

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STRUCTURAL SAFETY INSPECTION REPORT FORM

		4/24/2023
Name of Inspector:	David T. Colston, P.E., S.I.	
Telephone Number: 56	1-844-4060	
	2/8/2022 Inspection Completed	Date: 4/7/2023
□ No Repairs Required	\boxtimes Repairs Required outlined	in attached report
	□ Immediate Repairs Neede	d, Restricted Use
⊠ Building Safe	□ Building Unsafe	David T Colston
Licensed Professional		
⊠Engineer / □Archited	et Name: David T. Colston	Seal
	lified to practice in the discipline in wh	
	ot have an affiliation or other financial	interest in the subject building(s).
Signature:		Date: 5/12/2023
This report has been based	upon the minimum inspection guideli	nes for building safety inspection for the
County of and ability, this report rep		artment. To the best of my knowledge sent condition of the structure, based
	N OF STRUCTURE	
a. Name on Title: Adm		
b. Street Address: 875	0 S Ocean Dr, Jensen Beach, FL 3	34957
c. Legal Description:		
	miral Owners' Association	
	ddress: 8750 S Ocean Dr, Jensen E	Beach, FL 34957
f. Building Parcel ID:		
	pancy Classification: R-2	
h. Present Use: R-2 Co	o-occupancy	
· · · · · ·		

 Gen. Description, Type of Construction: Midrise condominium Sq. Ft: 206,487 # of Stories: 20





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- j. Special Features: N/A
- k. Additional Comments: N/A
- 1. Additions to Original Structure: None

2. PRESENT CONDITION OF STRUCTURE

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a. General Alignment (Note: good, fair, poor; explain if significant):

- 1. Bulging: Good
- 2. Settlement: Good
- 3. Deflections: Good
- 4. Expansion: Good
- 5. Contraction: Good

b. Portion Showing Distress (Note: beams, columns, structural walls, floor, roofs, other): Balcony edges – Some balcony edges show longitudinal cracking along the outer edges and contain a hollow acoustic sound. Less than 10% of the overall edges. Not currently a life safety issue.

Roofing System – Over 70% of the roof contained moisture as discovered during the moisture survey. We recommend removing and replacing the roofing system. A roofing project specification and bidding form will be created.

c. Surface Conditions (General conditions of finishes- noting cracking, spalling, peeling, signs of moisture penetration and stains):

The exterior walls, and balcony parapet walls are all covered by stucco. Minor delamination and cracking have been discovered on the stucco surfaces.

d. Cracks (Note location in significant members. ID crack size as 'HAIRLINE' if barely discernable; 'FINE' if less than 1 mm in width; 'WIDE' if over 2 mm:

Both FINE and WIDE cracking have been discovered on soffit ceilings located on balconies. FINE cracking has been discovered on various concrete balconies.

e. General extent of deterioration (cracking or spalling of concrete masonry, oxidation of metals, rotor borer attack in wood, etc):

Metal rebars and framing are found to be in good condition.

f. Previous Repairs or Patching: N/A



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g. Nature of present loading indicate residential, commercial, other estimate magnitude: R-2, Designed per ASCE 07 standards, 40 PSF Interior; 60 PSF Balconies.

h. Protection from undermining: N/A

3. INSPECTIONS

a. Date of Notice of Required Inspection: N/A

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b. Date(s) of actual inspection: 3/31/2023

- Name and qualifications of individual submitting report: David T. Colston, P.E., S.I. # 55501
- d. Description of laboratory or other formal testing, if required, rather than manual or visual procedures:

N/A

e. Structural repair (Note either item 1. OR 2. below)

1. None Required: □

2. Required (Describe and indicate acceptance): Balconies will need structural repairs on edges.



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4. SUPPORTING DATA

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- \boxtimes sheet written data a.
- b. \boxtimes photographs
- c. \Box drawings or sketches

5. MASONRY BEARING WALL (note good, fair, poor on appropriate lines)

a. Concrete Masonry Units (CMU): Good

- b. Clay tile or Terracotta units: Good
- c. Reinforced concrete tie columns: Good
- d. Reinforced concrete tie beams: Good
- e. Lintel: Good
- f. Other type bond beams: Good
- g. Masonry finishes EXTERIOR
 - 1. Stucco: Fair
 - 2. Veneer: N/A
 - 3. Paint Only: Fair
 - 4. Other (Describe):

h. Masonry finishes - INTERIOR

- 1. Vapor barrier: N/A
 - 2. Furring and plaster: N/A
 - 3. Paneling: Good
 - 4. Paint Only: Good
 - 5. Other (Describe):

Cracks i.

- 1. Location (Note beams, columns, other): Balcony slabs
- 2. Description: Balcony slabs have fine to wide cracks along the edge.

Spalling j.

- 1. Location (Note beams, columns, other): Tower Walls
- 2. Description: Spalling is spotted on walls throughout the exterior of the building.
- k. Rebar corrosion (Note appropriate line):
 - 1. None visible: \boxtimes
 - 2. Minor, patching will suffice: \Box

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- 3. Significant, but patching will suffice: \Box
- 4. Significant, structural repairs required: □
- 5. Description:

1. Samples chipped out for examination in spall areas

- 1. None: 🛛
- 2. Yes (describe color, texture, aggregate, general quality):

6. ROOF AND FLOOR SYSTEM AND WATERPROOFING

a. Roof:

1. Description (flat, slope, type roofing/deck, condition):

Flat Built-Up Roofing (BUR) System: Mineral Aggregates, Asphalt Built-Up Membranes, Perlite Insulation Boards, Polyisocyanurate Insulation Boards, Concrete Deck.

Condition: Over 70% of the total roof area contains moisture and the insulation boards contain more than 5% moisture. The roofing project is recommended to start in 12 months. SEP is putting together specifications and bidding package.

- 2. Water tanks, AC, cooling towers, signs, other heavy equipment, and condition of support: Cooling Towers, AC Systems, Water Tanks are all present on the roof and their supports are in good shape.
- 3. Types of drains and scuppers and conditions:

4" Drains are evenly spaced out on the roofing system. Drains are in good condition and have no signs of deterioration.

b. Floor System(s)

1. Description (type of system framing, materials, spans, condition):

N/A

c. Inspection (Note exposed areas available for inspection, and where it was found necessary to open ceilings, etc for inspection of typical framing members: N/A

d. Waterproofing:

1. Have finishes been added after construction? □YES ⊠ NO For waterproofing inspection findings, add Supplemental Inspection Report

7. STEEL FRAMING SYSTEM

a. Description: All penthouse units contain soffits that are made from a galvanized light metal framing system. The framing system does contain minor oxidation in some units. SEP recommends removing/replacing the damaged framing within 24 months.

b. Exposed Steel (Describe condition of paint and degree of corrosion): None



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c. Concrete or other fireproofing (Note any cracking or spalling and note where any covering was removed for inspection): **None**

d. Elevator sheave beams and connections, and machine floor beams (Note condition): Good

8. CONCRETE FRAMING SYSTEM

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a. Full Description of Structural System: The building utilizes PT cables for all the slabs/floors, and traditional concrete construction for all primary load carrying components like beams and columns. Pile / Pile cap foundation.

b. General Condition: The overall condition of the building is in good shape. However, a few balconies contain cracks along the edges that could indicate rebar corrosion. Columns and beams are in good shape.

c. Cracking (Check appropriate line and describe if present):

1. None visible: 🗆

2. Minor, patching will suffice: \Box

3. Significant, but patching will suffice:□

4. Significant, structural repairs required: ⊠

5. Location and Description of members affected and type of cracking:

Minor cracking has been observed along a few balcony edges. Along with stucco delamination alone the edges.

d. Rebar Corrosion (Check appropriate line and describe if present):

1. None visible: 🛛

2. Minor, patching will suffice: \Box

3. Significant, but patching will suffice: \Box

4. Significant, structural repairs required: \Box

5. Location and Description of members affected and type of corrosion:

No visible rebar corrosion, but cracking along the edges, and stucco delamination can indicate rebar corrosion.

e. Samples chipped out in spall areas:

1. None: 🖂

2. Yes (Describe color, texture, aggregate, general quality):

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9. WINDOWS

- a. Type (Wood, steel, aluminum, jalousie, single/double hung, casement, awning, pivoted, fixed, other): Large Fixed Windows with Aluminum Framing
- b. Anchorage (Type and condition of fasteners and latches): Tapcons Good Condition
- c. Sealant (Condition of perimeter sealant and at mullions): Fair
- d. Interior seals (Condition at operable vents): Fair
- e. General Condition: Good

10. WOOD FRAMING

- a. Type (fully describe if mill/light construction, major spans, trusses): N/A
- b. Note metal fittings and condition (angles, plates, bolts, pintles, other): N/A
- c. Joists (note if well fitted and still closed): N/A
- d. Drainage (Note accumulations of moisture): N/A
- e. Ventilation (Note any concealed spaces not ventilated): N/A
- f. Note any concealed places opened for inspection: N/A
- g. Areas of Other Concerns: N/A



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PHASE ONE MILESTONE INSPECTION REPORT

April 24th, 2023

To: St. Lucie County Planning & Development Services Building & Code Regulation Services 2300 Virginia Avenue Fort Pierce, Fl. 34982

CA 8539

Property

Address: Admiral Condominium 8750 South Ocean Drive Jensen Beach, FL 34957

The following summarizes SEP's structural assessment of the building along with recommendations. *Please note this report will be later modified to become the Phase II Milestone report that fulfills the requirements of the state. Once repairs are completed, SEP will submit that report.*

INTRODUCTION:

This report is a summary of the visual examination of the habitable and uninhabitable areas of the above-mentioned property, including major structural components. The inspection was performed by Structural Engineering Professionals (SEP). The following summarizes SEP's structural assessment of the building along with recommendations.

BUILDING DESCRIPTION:

Admiral is an 20 story, 108-unit condominium building with a total area of 206,478 sq ft. It was built in 1984 using a combination of post tension cables and traditional concrete reinforcement, as well as CMU walls and concrete construction for all primary load-carrying components, including beams, decks, columns, and balconies.

INSPECTION RESULTS:

• **Roofing:** The roof consists of a BUR system with gravel. The roofing system and all associated mechanical equipment are supported by a concrete deck. A recent moisture survey was completed in December 2022. From the survey, over 70% of the total area contained moisture and from the core drillings the insulation boards contained more than 5% moisture. A roofing project is set to start later this year. SEP is in the process of making project specifications and bid documents.



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Roof Figure 1.

• **Balconies**: The balconies are constructed using rebar and post tension cables. In most cases, the balconies show little distress except for some units where the edge has some deterioration. A recent balcony survey was completed in December 2022, which consisted of visually and acoustically inspecting all the balconies (**Figure 3**). This included the slab, the edges, and the ceilings. A total of 86 linear feet of edge was discovered to have damage, along with 77 square feet of partial depth repairs on the slab. The balconies are all covered by tiles, and delaminated areas were discovered, about 963 square feet. SEP deems that the area is safe and poses no immediate danger to the residents. A balcony project is recommended to start within 12 months. The repair project for all the balcony repairs was estimated to be about \$197,000.



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Figure 1. Balcony Edge

Figure 2. Balcony Edge



Figure 3. Sample Balcony Survey Map

- **Columns:** The building utilizes traditional steel reinforced concrete columns and piles / pile caps for vertical loads support. The condition of the columns was generally very good with only superficial damage to the stucco being noted. During the garage repair project in 2022-2023, various columns on floors 1, 2 and 3 had their stucco repaired.
- Foundation: As stated above, the building utilizes piles / pile caps for the primary vertical support for the building. SEP also conducted a thorough visual examination of the foundation walls around the building. SEP carefully inspected the foundation, looking for any visible signs of damage or deterioration, such as cracks or settling. Since no invasive or destructive testing was planned, SEP relied solely on visual cues to

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determine the foundation's condition. Based on the visual inspection, SEP determined that the building foundation was in good condition and exhibited no signs of damage or deterioration that could compromise its structural integrity. No potential issues were observed during the inspection, and overall, the visual foundation inspection provided valuable information about the foundation's condition.

- Exterior walls: The inspection of the exterior walls involved a visual examination of the exterior walls of the building for any signs of damage or deterioration that could compromise their structural integrity. Structural Engineering Professionals (SEP) looked for any indications of damage or deterioration, such as cracking, spalling, or water infiltration. During a drone inspection SEP discovered small areas of delaminated stucco on the exterior walls. No large cracking or spalling was discovered during any of the inspections. The walls are in good structural condition.
- Windows & doors in common areas: The windows and doors located in the common areas on the 1st floor were visually inspected. The windows and doors at the building's main entrance (west side) were removed and replaced this year, as well as the doors on the east side. The windows and doors on the east side of the building were in good shape and the seals have no signs of cracking or damage. No leaking was reported or discovered during any of the inspections.
- Safety hazards: No safety hazards were identified during the inspection.

Recommendations and Conclusion on Following Page





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RECOMMENDATIONS:

Based on our findings, we recommend that the Owners initiate a replacement project on the roofing system, due to the results found in the moisture survey and age of the roof. We also recommend that the Owners plan for a balcony project to address the problem areas found during the survey. SEP will be preparing drawings and specifications for those repairs.

CONCLUSIONS:

Based on the inspection, the building appears to be in good condition with relatively minor chloride-based corrosion damage. The primary load carrying structural systems are in good condition and show expected signs of minor deterioration. Exterior walls, windows, and doors are also in good condition, with no issues such as leaks, and cracks. Future repairs will involve the balcony edges as well as the replacement of the roofing system.

Based on the scope of this inspection and for the areas that were able to be assessed, within a reasonable degree of engineering certainty, we did not observe any condition that would compromise the safety of the building for its intended use and occupancy.

Respectfully,

David T Colston, P.E., S.I. FL Reg #55501

This document has been digitally signed and sealed by David T Colston, P.E., S.I.; FL No. 55501. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.



Roof Surveys, Inc. 750 E. Sample Road, Bldg. 3-227 Pompano Beach, Florida 33064

Roof Moisture Scan & Condition Analysis Report December 16, 2022

The Admirals Owners Association

Island Dunes Condominium 8750 South Ocean Drive Jensen Beach, Florida

(Main Tower—all accessible low slope roof areas)





Island Dunes Condominium – 8750 S. Ocean Drive, Jensen Beach, Florida



Island Dunes Condominium — 8750 S. Ocean Drive, Jensen Beach, Florida





750 E. Sample Road - Building 3 - Suite 227 - Pompano Beach, Florida 33064 Off. (954) 545-9320 - <u>Roofsurveys@bellsouth.net</u> - www.roofsurveysinc.com

DATE - December 16, 2022

- REPORT TO Rebecca Deegan, LCAM Admiral's Owners Association 8750 S. Ocean Drive Jensen Beach, Florida 34957
- **REPORT OF** Nondestructive radioisotopic moisture survey and condition analysis report. Core sample description and gravimetric worksheet are also enclosed.
- **LOCATION** Island Dunes Condominium 8750 S. Ocean Drive, Jensen Beach, Florida (*Main Tower all accessible low slope roof areas*).

As requested by Admiral's Owners Association management, Roof Surveys Inc. visited the above location during the day of December 7, 2022. The purpose of this site investigation was to perform a roof condition analysis and moisture survey. Roof Surveys Inc. achieves this through the use of a non-destructive radioisotopic moisture survey. This moisture survey can be used as a tool to interpret the roof's overall moisture integrity, and as a leak source detection.

TEST PROCEDURE -

The investigation procedure employs a 10' X 10' grid monitoring system to record relative moisture concentration using a nondestructive radioisotopic moisture gauge. These moisture readings are recorded and displayed on the Graphic Interpretation Sheet(s) enclosed. The roof system is physically marked with bright orange paint on a ten-foot increment, both horizontally and vertically. These moisture readings represent the amount of subsurface hydrogen (moisture) present at the exact location of the reading. Additional readings were also obtained around selected penetrations and curbs.

The test procedure involves the utilization of a neutron generator (*Troxler Moisture Gauge*) with a radioactive source, which emits high-energy ("fast") neutrons aimed at the target area. From their collisions with the atoms in the insulating material, some neutrons are reflected back to the vicinity of the neutron gauge. Neutrons that hit hydrogen atoms are slowed and counted by the instrument. The number of returning ("slow") neutrons indicates the amount of hydrogen atoms in the tested material. The number of hydrogen atoms, which constitute two-thirds of the atoms in water, becomes the index of the areas of moisture in the tested roofing system.

The results of the moisture test are confirmed utilizing alternative technologies. These include the use of a nondestructive Tramex gauge, which works on the principle of induction of an electrical current. Our destructive testing process includes the use of a Delmhorst capacitance meter. This device also works on the principles of induction. Combined with the core sample gravimetrics, we are capable of having a scientific verification of the subsurface moisture conditions.

This detected subsurface moisture is shown as the blue shaded or crosshatched areas on the Graphic Interpretation Sheet contained within this report. All deficiencies identified during the inspection process are either photographed, or physically circled with bright orange paint, or both.

GRAPHIC INTERPRETATION SHEET(S) -

The Graphic Interpretation Sheet(s) identifies the exact dimension of the building's roof system, and also documents the approximate location of any roof penetrations *(soil vents, interior drains, ventilator curbs, A/C sleepers)*. For the purpose of this particular project the properties low slope roof system is being depicted on one "Graphic Sheets". This individual graphic sheet contains all of the roof system detail, along with the location of any entrapped moisture. The separate roof areas and levels are identified and labeled on the sheets. The site plan combines the sections with their location within the complex *(if applicable)*.

The legend on the right-hand side indicates the hydrogen value as related to subsurface moisture at that exact location within the roof system. The legend indicates that all hydrogen levels exceeding seventeen (17) represent light subsurface moisture within the roof system (typically affecting the polyisocyanurate insulation). All hydrogen levels exceeding twenty-five (25) represent increased subsurface moisture within the roof system (typically affecting both the insulation materials and membranes). As the hydrogen values continue to increase, so does the percentage of subsurface moisture that it represents.

PHOTOGRAPHIC ANALYSIS -

A total of sixteen photographs were taken during the investigation of the roof system. The location of the photographs is denoted by the purple-colored numerals on the graphic sheets. These numerals correspond to the enclosed photographs and their respective descriptions. These photographs provide overviews of all sections, areas of concern *(roof detail deficiencies)*, evidence of recent repairs, and documentation of needed maintenance. Please thoroughly review these along with their locations.

ROOF SYSTEM DETAIL -

The roof systems appear to have been constructed using multiple plies of asphalt applied membranes and base sheet. The surfaces of these membranes are covered with an application of mineral aggregate embedded using hot asphalt. The roof system was installed directly over a series of polyisocyanurate covered by a series of perlite insulation boards. The perimeters of the

roof system terminate against a stucco covered concrete parapet wall with anchored metal counter flashing detail *(see photographs and core sample sheet).*

****** This roof system information is for internal report purposes and should not be used for any repair specifications or guidelines. The descriptions and corresponding legends are based upon three gravimetric core cuts, visual identification, and professional interpretation.

GRAVIMETRIC PROCEDURE -

The gravimetric testing involves the procurement of three samples from the roof system (low, medium, high). The locations of the samples are based upon the results of the initial moisture testing and their location is shown on our graphic sheet. The samples for this testing were obtained on December 7, 2022, immediately after completing the moisture survey process.

The roof material samples are then separated into insulation and membrane materials. They are immediately labeled and double bagged for transportation. At the lab the physical core samples are then weighed and placed into a low temperature oven for approximately twenty-four hours. After the time in the oven the individual samples are then weighed again. The difference in the weight can then be determined and used to represent the amount of water within the materials.

The Florida building code (FBC 2021) sets an allowable maximum limit of subsurface moisture within the roof system rigid insulation materials at 8%, membranes 5%.

OBSERVATIONS:

The tested roof area was measured at a total of 13,866 square feet. According to the Port St. Lucie County Property Appraisers web site the buildings construction was completed in 1983, approximately thirty-nine years ago. It is unlikely that this is the original roof system. Typically, a low slope asphalt-based roof system will remain effective in South Florida for approximately twenty years. This estimate varies depending on quality of workmanship, materials, drainage slope, and preventative maintenance procedures. Roof Surveys Inc. estimates that the current roof system exceeds twenty years of age.

It appears the current roof system was designed with adequate slope, directing surface water towards a series of centrally located interior drains. Visually the roof system contained minimal evidence of ponding, due to a lack of proper drainage (i.e., algae, decolorization). There was extensive evidence of an on-going maintenance program. All of the penetration curbs, vents, and stacks appeared to be well maintained. All of the exposed base and curb flashing details are properly covered with UV reflective paint. There are a series of conduit support stands extending from north to south along the east side of the elevator houses that appear to have been or are currently an active source of subsurface water intrusion (see photos No. 14,15,16)/

As shown on the enclosed graphic interpretation sheet substantial areas of subsurface water were detected within the roof system materials. Typically detected subsurface water will either affect the membranes (inner ply), or underlying insulation materials. Following the path of least resistance, subsurface water can travel under the insulation material, or along the concrete deck. This water could eventually enter the facility through cracks in the decking, or through mechanical penetrations (i.e., vents, stacks, conduits).

CONCLUSIONS:

According to the <u>Florida Building Code</u>, <u>High Velocity Hurricane Zone (HVHZ)</u> not more than twenty-five percent of the total of any roof area, roof section of any existing building or structure shall be repaired, replaced, or recovered in any twelve-month period. The code states that the roof system has to be completely removed and replaced. Not all counties/municipalities have adopted this portion of the code.

Our roof moisture survey process has determined the following intrusion totals/percentages for building's main roof system. Our totals were arrived at by squaring off the depicted wet areas just as a contractor would in the removal process.

Main Tower Roof Roof Area = 13,866 sq.ft. Wet Areas = 10,241 sq.ft. 73.86%

The amount of water affected roof materials is well above the twenty-five percent threshold on the tested roof system and should be completely removed and replaced as per the building code.

It should be understood that the data and sample collected, along with this written report prepared by Roof Surveys, Inc. are representative of the present roof condition. Roof Surveys, Inc. wishes to thank management for the opportunity to assist with their roofing needs. If Roof Surveys, Inc. can be of any further assistance please kindly advise.

Respectfully submitted,

Roof Surveys, Inc.

David A. Smith

David A. Smith Director



December 15th, 2022

File # 1984-22

Mr. David Smith Roof Surveys, Inc. 750 East Sample Road, Building # 3 Suite # 227 Pompano Beach, Florida 33064

Re: Gravimetric Core Analysis <u>The Admiral</u> <u>8750 South Ocean Boulevard</u> Jensen Beach, Florida

Dear Mr. Smith,

As requested, A. Tomassi Roof Testing, Inc. has completed gravimetric testing on three (3) roof core samples delivered to our office. This report transmits the results of our laboratory tests.

We understand that these samples were obtained from the roof at 8750 South Ocean Boulevard. The subject facility is located in Jensen Beach, Florida. Three (3) core samples were obtained consisting of Nine (9) specimens. (see gravimetric worksheet)

The samples were delivered to our office in sealed plastic bags with notations on the bags identifying the samples. (We have used those same notations in our report) The roof samples were then removed from the bags and weighed. The samples were then placed in a lab oven at 230° F, for 24 hours, after which they were removed from the oven and weighed again. The percentage of moisture loss by weight was then computed.

The laboratory moisture content test results are given on the attached gravimetric work sheet. The gravimetric work sheet also indicates the core sample locations.

We appreciate the opportunity to be of service. If you have any questions, please call.

Sincerely, tuy lomaszi

Anthony Tomassi Metro-Dade Certified Lab Contact & QA Supervisor

Dominick Scarfo (report review) AR0010248

Page 1 of 2

5451 NW 24th Street, Margate Fl. 33063 - Tel. 954 - 979-1180 Fax. 954 - 979 - 1182 Metro - Dade County NOA—Testing Agency Certification # 22-0830.05 Revises # 03-0317.03

Gravimetric Work Sheet

Project Address: The Admiral 8750 South Ocean Blvd, Jensen Beach, Florida

Date: <u>12-8-22</u> Sample In: <u>2:00 PM</u> Date: <u>12-9-22</u> Sample Out: <u>2:00 PM</u>

Roof System Composition:

Asphalt Applied BUR Membrane Perlite Insulation – Approximately .75" Thick <u>Over</u> Polyisocyanurate Insulation - Approximately 2" Thick

FLORIDA BUILDING CODE, MOISTURE ALLOWANCES:

The (FBC) Florida Building Code, Chapter 15, Section 1521.12, sets an allowable maximum limit of moisture in the roof system as 5 % in the roof membrane, and 8 % in the rigid board commercially manufactured insulation.

File	#	1984-22
1 110	.11	1701 444

Core Location	Troxler Reading	Sample Type	Wet Weight as Collected (gr.)	Dry Wt. after 24 hours (gr.)	Moisture Loss	% of Moisture by Wt. (gr.)
Core #1	17	BUR	21.42	21.40	0.02	.09 %
		Perlite.	10.66	10.54	0.12	1.13 %
		ISO	2.16	2.00	0.16	8.00 %
Core #2	20	BUR	26.55	26.49	0.06	.22%
		Perlite.	11.78	11.74	0.04	.34%
		ISO	3.64	3.01	0.63	20.93%
Core #3	30	BUR	14.88	14.14	0.74	5.23%
		Perlite.	17.84	8.42	9.42	111.87%
		ISO	12.16	2.78	9.38	373.41 %

Moisture Percentages above highlighted RED represent high moisture levels.

All roof samples delivered to our office by Mr. David Smith from Roof Surveys, Inc.

Reviewed by

they lomassi Anthony Tomassi

QA Manager & Certified Lab Contact



Island Dunes Condominium — December 2022

Core Cut No. 1



Troxler moisture gauge indicates a subsurface hydrogen value of "17". Numeric value indicates amount of hydrogen encountered by device. Higher hydrogen values represent water in system.

Core Cut No. 2



Troxler moisture gauge indicates a subsurface hydrogen value of "20". Numeric value indicates amount of hydrogen encountered by device. Higher hydrogen values represent water in system.

Core Cut No. 3



Troxler moisture gauge indicates a subsurface hydrogen value of "30". Numeric value indicates amount of hydrogen encountered by device. Higher hydrogen values represent water in system.

Island Dunes Condominiums 8750 South Ocean Drive Jensen Beach, Florida

Core Sample Composition Sheet

Mineral Aggregate Asphalt Built-up Membranes Perlite Insulation Boards Concrete decking



Roof Surveys, Inc. 750 E. Sample Rd., Bldg. 3-227 Pompano Beach, Florida 33064 RVEYS, INC With The Best (954) 545-9320





ROF Island Dunes Condominium - Dec. 2022



ROF Island Dunes Condominium - Dec. 2022







Large area of high concentration subsurface water, wet





(11)Additional areas of subsurface water under C. Twr.

(10) Additional areas of subsurface water under C. Twr.



Subsurface water continues within center of roof, wet (12)

ROF Island Dunes Condominium - Dec. 2022

