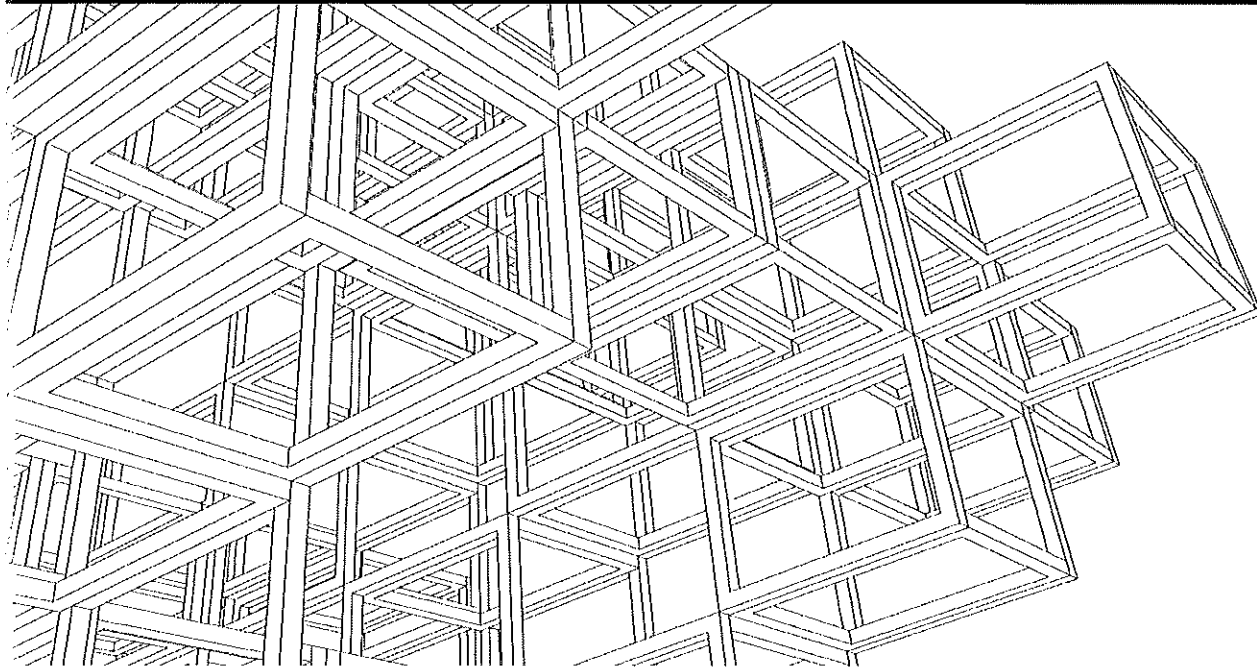


ENGINEERED LIFE SAFETY SYSTEM VALIDATION REPORT



BAYSHORE BATH & TENNIS CLUB
925 N HALIFAX AVE
DAYTONA BEACH, FL 32118

Prepared For:

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Draft – October 19, 2023

ELSS # 6122

SLS Consulting, Inc.
Miami | New York | Atlanta | Boston | Tampa

TABLE OF CONTENTS

I. INTRODUCTION..... 3
Applicable codes 4
Building Description 5
Building Survey 6
 Means of Egress 6
 Apartment Building Fire Safety Evaluations..... 10
II. ENGINEERED LIFE SAFETY SYSTEM APPROACH 13
III. RECOMMENDATIONS.....13
 Sprinkler System 13
 Standpipe System..... 14
 Exit Stair Enclosures..... 14
 Fire Alarm System..... 14
 Smoke Alarm Upgrade..... 14
 Fire Department Radio Communication 14
 Doors and Hardware 15
 Exit Discharge and Means of Egress 15
IV. SUMMARY AND CONCLUSION 16
 Maintenance..... 16

NOTICE: SLS Consulting, Inc. **STRONGLY** recommends providing complete automatic sprinkler protection within the property in lieu of an Engineered Life Safety System. Sprinkler systems provide a higher level of life safety for persons in the immediate vicinity of a fire as well as emergency responders.

I. INTRODUCTION

SLS Consulting, Inc. (SLS) has prepared this *Engineered Life Safety System (ELSS) validation* report for Bayshore Bath and Tennis Club which is located at 925 N. Halifax Ave. Daytona Beach, Florida. An *Engineered Life Safety System* is an engineering analysis of an existing building which recommends implementation of additional safety features and fire protection systems to provide a level of safety acceptable to the authority having jurisdiction (AHJ) in lieu of the installation of a complete automatic sprinkler system that provides 100% protection throughout the building. The authority having jurisdiction will determine the acceptable level of safety and must approve the *Engineered Life Safety System* before it can be implemented.

Two items are covered in this report (1) A life safety survey and a professional analysis on the life safety conditions on the building and (2) a set of recommendations called the "Engineered Life Safety System". This *Engineered Life Safety System* report has been prepared based upon the documentation provided by building representatives and site inspections. The survey consisted of visual inspections and review of available record drawings only and no destructive analysis was conducted.

Upon approval by the Daytona Beach Fire Marshal, the recommendations included in the plan will become the Engineered Life Safety System which shall be implemented by the building owners or Association. This Engineered Life Safety System will be the basis for the design and implementation of each element of the remediation plan. Design and permit documents required to implement this plan are not included in this report and will be provided at each phase of the remediation plan.

SLS Consulting, Inc., will be considered the Engineer of Record. All design documents not provided by SLS Consulting, Inc., or its affiliates, shall be reviewed and approved by SLS for compliance with this ELSS only.

The Florida Fire Prevention Code (FFPC) states that an automatic sprinkler system is required for an existing high-rise building as follows: "*All high-rise buildings that are condominiums, other than those meeting 31.3.5.12.2 or 31.3.5.12.3, shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with 31.3.5.2, not later than December 31, 2019.*"

Note: "FS 718.112.2 (I) Firesafety", states "The local authority having jurisdiction may not require completion of retrofitting with a fire sprinkler system or an engineered life safety system before January 1, 2027."

It is the professional opinion of SLS Consulting, Inc. that the requirement above is the best protection for life safety and property protection. SLS Consulting, Inc., **STRONGLY** recommends providing complete automatic sprinkler protection throughout the building in lieu of an Engineered Life Safety System. Sprinkler systems provide a higher level of life safety for persons in the immediate vicinity of a fire as well as emergency responders. It is the opinion of SLS that Engineered Life Safety System is generally cost

effective in comparison to full sprinkler protection; however, life safety decisions should never be based on cost alone. SLS is happy to discuss our opinion and process with any members of the property to support in this decision.

However, the *Florida Fire Prevention Code* does allow for an alternate method of compliance for existing high-rise buildings as stated below.

FFPC, NFPA 101, Section 31.3.5.12.3 states the following:

An automatic sprinkler system shall not be required in buildings having an approved, engineered life safety system in accordance with 31.3.5.12.4."

This Engineered Life Safety System is not intended to be an equivalency or a performance-based alternative to an "approved, supervised automatic sprinkler system" installed throughout the building.

Applicable codes

The major applicable codes for the project include, but are not limited to, the currently adopted editions of the following:

- **Fire Prevention/Life Safety Code**
 - FFPC *Florida Fire Prevention Code*
 - NFPA 1 *Fire Code (with Florida modifications)*
 - NFPA 101 *Life Safety Code (with Florida modifications)*
- **NFPA Standards**
 - NFPA 10 *Standard for Portable Fire Extinguishers*
 - NFPA 13 *Standard for the Installation of Sprinkler Systems*
 - NFPA 14 *Standard for the Installation of Standpipe and Hose Systems*
 - NFPA 20 *Standard for Installation of Stationary Fire Pumps for Fire Protection*
 - NFPA 70 *National Electrical Code*
 - NFPA 72 *National Fire Alarm and Signaling Code*
 - NFPA 80 *Standard for Fire Doors and Other Opening Protectives*
 - NFPA 90A *Standard for the Installation of Air-Conditioning and Ventilating Systems.*
 - NFPA 92 *Standard for Smoke Control Systems*
 - NFPA 101A *Guide on Alternative Approaches to Life Safety*
 - NFPA 105 *Standard for Smoke Door Assemblies and Other Opening Protectives*
 - NFPA 110 *Standard for Emergency and Standby Power Systems*
- **State Fire Marshal Standards**
 - FS 633 *Florida Statute - Fire Prevention and Control.*
 - FAC 69A *Florida Administrative Rules – State Fire Marshal*

Building Description

Bayshore Bath and Tennis Club is an existing condominium consisting of two 11-story high-rise towers, with a shared 2-story podium that contains common areas, management offices, amenities, and parking. The occupancy of this building, as classified in the Florida Fire Prevention Code, is a multiple occupancy, mixed, existing apartment occupancy with assembly, storage and other incidental uses.

The building was built in 1973 and contains a total of 212 units. Each floor from levels 1-11 contains 10 units. There are two enclosed stairwells at the center of each tower, along with two elevators in the tower. Parking Level A contains all parking, the fire pump, and some tenant storage. Parking Level B contains parking, amenities, and office spaces, along with each building generator.



Figure 1: Bayshore Bath & Tennis Club – West Elevation

Building Survey

Inspection(s) were conducted to assess the current conditions of the building. The evaluation focused upon those elements which are to be considered vital to provide a structure that will protect occupants who are not intimate with the initial fire development for the time needed to evacuate the building safely.

The design focuses on protection of the means of egress, detection of smoke and fire, early warning, adequate evacuation notification of occupants, and limiting the spread of smoke and fire to the area or room of origin.

This survey was not intended to be a line-by-line compliance inspection of the building. It is expected that those areas of non-compliance with the Code have already been addressed by the local AHJ to their satisfaction or will be addressed in the future.

Construction Type	Occupancy Classification	Hazard Classification
Type I	R-2, A-3	Ordinary

Means of Egress

System	Notes			
Number of Exits	Compliance with NFPA 101 Section 31.2.4 for number of exits.		Compliant	Non-Compliant
Stairs	Number of exit stairs serving all floors.	2	Open	Enclosed
Ground Floor	Number of exits on ground floor.	4		
Additional Notes	Two stairs per tower. Four total stairs			
Arrangements of Exits	Compliance with the requirements NFPA 101 Section 31.2.5 Arrangement of Means of Egress.		Compliant	Non-Compliant
Dwelling Units	Every dwelling unit has access to at least two separate & remotely located exits.		Compliant	Non-Compliant
Corridors	Dead end corridors not exceeding 50 feet.		Compliant	Non-Compliant
Common Path	Common path of travel not exceeding 35 feet.		Compliant	Non-Compliant
Travel Distance	Travel distance to the nearest exit from the dwelling unit door not exceeding 150 feet.		Compliant	Non-Compliant
Travel Distance	Travel distance within a dwelling unit (apartment) to a corridor door not exceeding 75'.		Compliant	Non-Compliant

Additional Notes						
Exit Discharge	Exit discharge in compliance with NFPA 101 Sections 7.7.				Compliant	Non-Compliant
Interior Exit Discharge	Yes	No	Area protected or separated in accordance with 7.7.2 Exit Discharge Through Interior Building Areas.		Compliant	Non-Compliant
Additional Notes	All stairs discharge to the interior of the building. There is no sprinkler protection at any level.					
Residential Exit Access Corridors	Compliance with 31.3.6 Corridors for 30-minute fire rating?				Compliant	Non-Compliant
Fire Barrier	Barrier rating 90 minutes	Unknown	Verified	Unverified	Compliant	Non-Compliant
Penetrations	Compliance with 8.3.5 penetrations for opening protectives				Compliant	Non-Compliant
Transoms, Louvers, or Transfer Grilles.	Existing Transoms, Louvers, or Transfer Grilles between the units and coridor.				Compliant	Non-Compliant
Additional Notes						
Doors	Exit access corridor doors 20-minute fire rated or equivalent.				Compliant	Non-Compliant
	Exit stair doors 90-minute fire rated.				Compliant	Non-Compliant
Hardware	Self-closing and latching exit access corridor doors.				Compliant	Non-Compliant
	Fire door hardware or fire exit hardware on fire doors.				Compliant	Non-Compliant
Additional Notes	SLS Consulting, Inc. did not complete a holistic study of doors for compliance with NFPA 80, it is recommended that all fire rated doors be inspected and tagged as compliant or replaced.					
Additional Notes	Unit doors are rated, but are not self-closing or self-latching.					
Delayed Egress/ Access Controlled	Compliance with 7.2.1.6 Special Locking Arrangements			NA	Compliant	Non-Compliant
Additional Notes						
Horizontal Exits	Horizontal exits are used in the means of egress and conform to the general requirements of Section 7.1 and the special requirements of 7.2.4.			Yes	No	Compliant
Additional Notes						

Smoke-proof Enclosures	Smoke proof enclosures are provided in accordance with sections 7.2.3?			Compliant	Non-Compliant
Type	Vestibule	Natural	Mechanical	Pressurization	
Additional Notes	Stairs are not provided with any smoke proof enclosure.				
Vertical Openings	Vertical shafts and penetrations conforming to the requirements of section 8.6.			Compliant	Non-Compliant
Atrium/Comm. Space/Convenience Openings	Atriums/Communicating Space/Convenience Openings conformance with 8.6.5 to 8.6.7		NA	Compliant	Non-Compliant
Additional Notes	Trash chute provided with sprinkler protection and rated doors				
Hazardous Rooms	All hazardous rooms are enclosed in rated construction consistent with the requirements of Table 31.3.2.1.1 of the Florida Fire Prevention Code (FFPC).			Compliant	Non-Compliant
Additional Notes					
Smoke Compartments	Corridors require two smoke compartments per 31.3.7 Subdivision of Building Spaces - Smoke Partitions	Yes	No	Compliant	Non-Compliant
Additional Notes					

Fire Protection/ Life Safety Systems

Fire Alarm System	The existing fire alarm system is in good operating condition and meets the requirements of 31.3.4.		Yes	No	Compliant	Non-Compliant
Initiation Type	Manual	Automatic	Both		Compliant	Non-Compliant
Notification Type	Emergency Voice Evacuation	Horns	Strobes		Compliant	Non-Compliant
Annunciation Panel	Location: One at each tower elevator lobby on B-Level			Compliant	Non-Compliant	
Detection Type	Smoke Detectors	Partial	Complete		Compliant	Non-Compliant
	Heat Detectors	Partial	Complete		Compliant	Non-Compliant
	Other	Partial	Complete		Compliant	Non-Compliant
Additional Notes	No sounders in any sleeping rooms.					
Smoke Alarms	Each dwelling unit is provided with smoke alarms in compliance with 31.3.4.5			Compliant	Non-Compliant	

**BAYSHORE CLUB – DAYTONA BEACH, FLORIDA
ENGINEERED LIFE SAFETY SYSTEM REPORT**

**ELSS#6122
OCTOBER 19, 2023**

Locations	Within All Bedrooms	Outside Bedrooms	Living Rooms	Kitchen				
Additional Notes	No smoke alarms located in any units.							
Sprinklers	Installed in accordance with Section 9.7			Yes	No	Compliant	Non-Compliant	
Locations	Laundry Rooms	Mechanical Rooms	Storage Areas	Common Areas	Trash Chute	Trash Room	Dwelling Units	
Additional Notes								
Standpipe Systems	Protected throughout by a Class I or III system				Yes	No	Compliant	Non-Compliant
Type	Automatic	Manual	Wet	Dry	Combined			
Locations								
Hose Connections	1 per floor	2 1/2"	1 1/2"	Hoses			Yes	No
Additional Notes	2 standpipes in the building, one per each tower near elevator lobbies							
Two-Way Radio Enhancement Systems	The building has installed a radio enhancement system to meet section 11.10 of the Florida Fire Prevention Code.					Compliant	Non-Compliant	
Additional Notes								
Fire Pump	Yes	No	Type Centrifugal	Fuel Electric	GPM 750 GPM			
Location	Parking Level A near center of garage.							
Additional Notes	Pump and controller are out in the open in the garage, protected only by small curbs. No room or bollards separating the pump from the drive lane. Pump serves both towers.							
Smoke Control System	Passive		Mechanical Exhaust		Mechanical Pressurization			
Additional Notes								
Emergency Generator	Yes	No	Size/Capacity: S Tower: 150 kW/N Tower: 250 kW					
Fuel Type	Diesel		Propane		Natural Gas			
Supplies	EM Lights	Elevators	Fire Pump	Smoke Control				
Additional Notes	Each tower is served by its own generator. North Generator also powers fire pump. Located on B-Level under each tower.							
Elevators	Lobby	Pressurized	1 Shafts	Phase I	Phase II			
Additional Notes								

Apartment Building Fire Safety Evaluations

While not required, SLS has provided a **post remediation** evaluation utilizing NFPA 101A as a benchmark to describe the condition in the facility as a residential occupancy.

Fire Safety Evaluation Worksheet for an Apartment Building

(Modified from NFPA 101A Residential Board and Care FSES for apartment buildings by SLS Consulting, Inc. Provided for reference and validation purposes only.)

SAFETY PARAMETER VALUES – APARTMENT BUILDING (MODIFIED)

Safety Parameters	Parameter Values									
	Combustible					Noncombustible				
1. Construction Building Height High Rise	Type V (000)	Type V (111)	Type III (200)	Type III (211)	Type IV (2HH)	Type III (200)	Type II (111)	Type II (222) & Type I		
	-10	-4	-10	-2(0) ^k	-4(0) ^k	-8	0	2		
2. Hazardous Areas	Double Deficiency			Single Deficiency		None or No Deficiency				
	-4(-7) ^{b,g}			0(-4) ^g		0				
3. Manual Fire Alarm	None or Incomplete				Manual Alarm					
					W/O F.D. Notification		W/ F.D. Notification			
	(2) ⁱ				2		3			
4. Smoke Detection & Alarm	None or Incomplete		Interconnected Systems				Total Building			
			Corrs. & Common Spaces		Corrs. & Common Spaces, & Living Units					
	-4(0) ^j		3(0) ^e		4		6			
5. Automatic Sprinklers	None or Incomplete		Corrs. & Public Spaces		Residential Units Only		Corrs., Hab., & Public Spaces		Total Building	
			2(0) ^c		4(0) ^c		6			
6. Separation of Residential Units and Exit Route from Other Spaces	None or Incomplete		Walls <30min		Walls ≥ 30min to < 1hr		Walls ≥ 1 hr.			
			Doors < 20 Min W/O	Doors ≥ 20	Doors < 20 Min W/	Doors ≥ 20	Doors < 20	Doors ≥ 20 Min W/		

		Closer	Min W/O Closer	Closer	Min W/ Closer	Min W/ Closer	Closer
	-6	-2	0(-2) ^b	1(-2) ^b	2(-2) ^b	1(-2) ^b	4(-2) ^b
7. Exit System	None or Incomplete	Multiple Routes					Direct Exit
		Deficient	W/O Horiz. Exit	W/ Horiz. Exit	Smokeproof Enclosure		
	-6	-2	0	2	2	4	
8. Exit Access (Serving Residential Units)	Max Dead End Is		No Dead End > 50ft and Travel				
	>100ft	>50 ft. or corridor common path >35 ft.	>200ft	>150 ft. to ≤ 200ft	>100 ft. to ≤ 150ft	>50 ft. to ≤ 100ft	≤ 50ft
	-6(0) ^d	-4(0) ^d	-2	-1	0	1	2
9. Interior Finish (Exit Access Corridors – Residential Floors)	Flame-Spread Ratings						
	> 75 to ≤200		> 25 to ≤75		≤25		
	-3		-1		0		
10. Vertical Openings	Open or Incomplete Enclosure				Enclosed ^h		
	Thru 5 or More Floors	3-4 Floors	2 Floors	<1hr ^f	≥1hr ^f		
	-10	-7	-2	0	1(0) ^b		
11. Smoke Control (serving floors having board & care home units)	None	Smoke Barriers	Mechanically Assisted Systems				
	0(2) ⁱ	2	By Zone	By Unit	By Corridor		
			3	3	4		

^a Use (-1 x height in stories) if building is fully sheathed with plaster, gypsum board, or similar materials but not <-2 if Parameter 5 is 8
^b Use () if Parameter 1 is based on Type V (000), Type III (200), or Type II (000), if Note ^a does not apply, and if Parameter 5 is building is ≤ 4
^c Use () if Parameter 1 is based on Type V (000), Type III (200), or Type II (000).
^d Use () if Parameter 7 is -6
^e Use () if Parameter 6 is based on "None or Incomplete", or "Walls or Doors" are ½-hr walls/20-min doors and Parameter 5 is building is ≤ 4

^f ≥30 min in existing building
^g Use () if hazardous area is on exit route or in refuge area serving group home unit.
^h Use () if Parameter 5 is ≥ 6
ⁱ Use () if Parameter 5 is 8
^j Use () where exemptions of 31.3.7.1 through 31.3.7.5 (NFPA 101) apply

For SI units: 1 ft = 0.3048

Individual Safety Evaluation – Apartment Buildings				
Safety Parameters	Fire Control (S ₁)	Egress Provided (S ₂)	Refuge Provided (S ₃)	General Fire Safety Provided (S ₄)
1. Construction	2	2	2	2
2. Hazardous Area	0	0 ÷ 2 = 0	0	0
3. Manual Fire Alarm	3 ÷ 2 = 1.5	3	3	3
4. Smoke Detection and Alarm	6 ÷ 2 = 3	6	6	6
5. Automatic Sprinklers	2	2 ÷ 2 = 1	2 ÷ 2 = 1	2
6. Separation of Living Units	4	4 ÷ 2 = 2	4	4
7. Exit System	2	2	2 ÷ 2 = 1	2
8. Exit Access	2	2	2	2
9. Interior Finish	0	0	0	0
10. Vertical Opening	1 ÷ 2 = 0.5	1	1	1
11. Smoke Control	0	0	0	0
Total	S₁ = 13	S₂ = 17	S₃ = 9	S₄ = 22

MANDATORY SAFETY REQUIREMENTS – EXISTING APARTMENT BUILDINGS					
Building Height	Evacuation Capability	Control Requirement (S _a)	Egress Requirement (S _b)	Refuge Requirement (S _c)	General Fire Safety Requirements (S _d)
1. High Rise	Prompt/Slow	10.5	3.5	6	8

EQUIVALENCY EVALUATION		Yes	No
Controls Provided (S ₁) minus Required Controls (S _a) ≥ 0	(S ₁) (S _a) 13 - 10.5 = 2.5	X	
Egress Provided (S ₂) minus Required Egress (S _b) ≥ 0	(S ₂) (S _b) 17 - 3.5 = 13.5	X	
Refuge Provided (S ₃) minus Required Refuge (S _c) ≥ 0	(S ₃) (S _c) 9 - 6 = 3	X	
General Fire Safety (S ₄) minus Required Refuge (S _d) ≥ 0	(S ₄) (S _d) 22 - 8 = 14	X	

CONCLUSIONS	
X	All of the checks in worksheet are in the "Yes" column. The level of fire safety is at least equivalent to that prescribed by NFPA 101, Life Safety Code, for apartment buildings to house residential board and care occupancies.
	One or more of the checks in worksheet are in the "No" column. The level of fire safety is not shown by this system to be equivalent to that prescribed by NFPA 101 for apartment buildings to house residential board and care occupancies.

II. ENGINEERED LIFE SAFETY SYSTEM APPROACH

An *Engineered Life Safety System* will include various fire safety enhancements to the building that will include passive protection and active fire protection systems that will work together to achieve a desired level of safety for the existing building.

FFPC, NFPA 101, Section 31.3.5.12.4 states the following requirements:

"An engineered life safety system shall ...include any or all of the following:

- (1) Partial automatic sprinkler protection*
- (2) Smoke detection systems*
- (3) Smoke control systems*
- (4) Compartmentation*
- (5) Other approved systems"*

The design intent of this *Engineered Life Safety System* is to control the fire to the room of origin and prevent the spread of fire and smoke throughout the building. The goal is to protect occupants who are not intimate with the initial fire development for the time needed to evacuate or relocate.

III. RECOMMENDATIONS

Upon acceptance by the local Authority Having Jurisdiction (Fire Marshal) the following recommendations shall be implemented as the Engineered Life Safety System:

Sprinkler System

The existing building is not provided with any sprinkler system. Sprinkler heads shall be provided in the laundry rooms, common area corridors, storage rooms, and mechanical spaces on each floor. The garage and common area levels shall be provided with a complete fire sprinkler system in all areas.

Additionally, one sprinkler head shall be provided above each unit door that opens to the exit corridor on the unit-side of the door. The purpose of this sprinkler is to provide a fire curtain to prevent the fire from spreading into the exit corridor. The type and

location of sprinkler heads will be specified in an engineering design specification in accordance with NFPA 13 that is not provided as part of this ELSS.

Standpipe System

The existing standpipe system appears adequate for the existing installation. It is suggested that the system be hydrostatically tested to ensure adequate pressure for sprinkler installation, however no recommendations are being made at this time.

Exit Stair Enclosures

Neither stair enclosure in both towers are provided with a smoke-proof enclosure. It is recommended that all stairwells be provided with mechanical pressurization to create a smoke-proof enclosure in compliance with 7.2.3 Smokeproof Enclosures.

Fire Alarm System

The current fire alarm system is an automatic system with partial smoke detection in common area spaces. Currently, all corridors are only provided with horns. Audible and visible notification devices in the form of speaker-strobes are recommended to be installed in the exit access corridors, along with all common areas. Additionally, one smoke detector shall be installed in the entryway of each residential unit. The purpose of these detectors is to provide early notification in the event of a fire emergency.

The fire alarm panel is an existing Silent Knight SK-5208 that is outdated and no longer supported. The panel shall be replaced with a new panel that is capable of supporting the additional devices, as well as provide space for future expansions.

Audible notification devices shall be provided in each sleeping room. The sound pressure level for occupant notification in sleeping rooms should provide a minimum sound pressure level of 75 dBA at the pillow to wake a sleeping occupant.

Smoke Alarm Upgrade

Based on the units surveyed, the sleeping rooms are not provided with local smoke alarms. All existing single station smoke alarms over 10 years old shall be replaced. Additionally, it is recommended that all sleeping rooms be fitted with smoke alarms to comply with NFPA 101 31.3.4.5 as modified by 31.3.4.5.4, which allows smoke alarms with 10-year lithium ion batteries.

Fire Department Radio Communication

In all existing buildings, minimum radio signal strength for fire department communications shall be maintained at a level determined by the AHJ as required by FFPC, NFPA 1, Section 11.10. Where required by the AHJ, two-way communication enhancement systems shall comply with NFPA 72.

Florida Statute 633.202(18) states as follows:

The authority having jurisdiction shall determine the minimum radio signal strength for fire department communications in all new high-rise and existing high-rise buildings. Existing buildings are not required to comply with minimum radio strength for fire department communications and two-way radio system enhancement communications as required by the Florida Fire Prevention Code until January 1, 2022. However, by December 31, 2019, an existing building that is not in compliance with the requirements for minimum radio strength for fire department communications must apply for an appropriate permit for the required installation with the local government agency having jurisdiction and must demonstrate that the building will become compliant by January 1, 2022. Existing apartment buildings are not required to comply until January 1, 2025. However, existing apartment buildings are required to apply for the appropriate permit for the required communications installation by December 31, 2022.

Therefore, the condominium association should test the signal strength throughout the building and pending the results, consider the installation of a radio communications enhancement system as part of this *Engineered Life Safety System*.

This is not a recommendation to require radio enhancements as part of the requirements of this ELSS.

Doors and Hardware

Some doors were missing labels, or the labels were painted over. It is recommended to clean and/or replace labels for all common area and stair doors in accordance with NFPA 80 *Standard for Fire Doors and Other Opening Protectives*. All stair doors at the time of survey were found to be self-closing and self-latching. There were no doors found that do not swing in the direction of exit travel. All unit doors are not self-closing or self-latching. It is recommended that all doors be provided with closers and are self-latching to maintain the continuity of the fire barrier.

Exit Discharge and Means of Egress

All stairs discharge to the interior of the building. The installation of a sprinkler system in the common area discharge location for these stairs will provide the necessary protection to make these interior exit discharge stairs compliant. No comments are being made at this time.

IV. SUMMARY AND CONCLUSION

In conclusion, *the Engineered Life Safety System* described in this report incorporates all the elements of FFPC, NFPA 101, Section 31.3.5.12.4. *The Engineered Life Safety System* is permitted by FFPC to provide an alternate method of protection in lieu of a complete (100% coverage) automatic sprinkler system.

This *Engineered Life Safety System* report must be approved by the Fire Marshal before it can be implemented. The Fire Marshal may have comments and may require additional safety features before the *Engineered Life Safety System* is approved.

The deadline for installation of a 100% coverage sprinkler system or the implementation of the *Engineered Life Safety System* is January 1, 2027.

It should be noted that in addition to the recommendations within this report the condominium associations should maintain proper records on below required services.

Maintenance

FFPC NFPA 1 requires that any owner, operator, or occupant, or any person in control of a building or premises shall keep records of all maintenance, inspections, and testing of fire protection systems, fire alarm systems, smoke control systems, emergency evacuation and relocation drills, emergency action plans, emergency power, elevators, and other equipment as required by the AHJ. All records required to be kept shall be maintained until their useful life has been served, as required by law, or as required by the AHJ. It should be noted that in addition to the recommendations above the condominium association should maintain proper records on items listed below.

Annual Smoke Testing – The below chart originates these codes – the Florida Building Code, NFPA 80 (Section 19.4), and NFPA 105 (Section 6.5). These standards have details on what to test or inspect, periodic requirements, and replacement information. These codes provide the smoke control system requirements directly – 909.20.4 for dedicated systems and 909.20.5 for non-dedicated systems.

Chapter 7 "Containment Dampers"	
Commissioning	
End of first year	
Every 4 years except in hospitals every 6 years	
Chapter 9 "Smoke Control Systems & Dampers"	
Dedicated	Non-dedicated
Commissioning	Commissioning
Semi-annually	Annually

Yearly Door Inspections - NFPA 80 5.2.4 states that, fire door assemblies shall be inspected and tested not less than annually, and a written record of the inspection shall be signed and kept for inspection by the AHJ.

Smoke Detectors/Smoke Alarms/Carbon Monoxide Detectors – Smoke Detectors and Smoke alarms are governed by *NFPA 72, National Fire Alarm and Signaling Code*, and those for carbon monoxide alarms are governed by *NFPA 720, Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment*. Both codes require the annual testing of alarm units according to the manufacturer's recommended procedure.

Submitted by:

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 Fire Protection Engineer

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**ENGINEERED LIFE SAFETY SYSTEM VALIDATION REPORT
Bayshore Bath and Tennis Club
925 N Halifax Ave.**

The undersigned acknowledge that this Engineered Life Safety System is not intended be an equivalency or a performance-based alternative to an "approved, supervised automatic sprinkler system" as is required by the Florida Fire Prevention Code, NFPA 101 31.3.5.2, and that this Engineered Life Safety System will not provide the same level of life safety or property protection as a complete supervised automatic sprinkler system installed throughout all areas of the building.

This Engineered Life Safety System is intended to provide an increased level of safety and property protection over the existing conditions found in the building by the implementation of all the recommendations contained in this report. This alternative compliance method is authorized by the Florida Fire Prevention Code, NFPA 101 31.3.5.12.3 and states that, "An automatic sprinkler system shall not be required in buildings having an approved, engineered life safety system in accordance with 31.3.5.12.4."

The design intent of this Engineered Life Safety System is to protect occupants who are not intimate with the initial fire development for the time needed to evacuate or relocate safely. The goal of the increased level of safety and property protection is to provide early and adequate warning of a fire condition to occupants of the building, to protect and maintain tenable conditions within the means of egress long enough to allow safe evacuation of the building or fire floor areas, to control the fire to the room or apartment of origin and to limit the spread of fire and smoke throughout the building.

Any alteration, modification, or exclusion of any recommendation of this Engineered Life Safety System shall only be by agreement between the Authority Having Jurisdiction and the Association or Corporation and shall not be assumed to be approved or recommended by SLS Consulting, Inc., and shall be considered an incomplete implementation of these recommendations which may not provide the intended level of protection.

Accepted by: (Building representative)

Terrie Quick
(Signature)

Dec. 8, 2023
Date

TERRIE QUICK
(Print Name)

PRESIDENT
(Print Title)

Approved by: (Fire Marshal)

(Signature)

Date

(Print Name)

(Print Title)

An addendum is is not attached altering this design. (Check box and attach addendum agreement if applicable.)