

STRUCTURAL CONDITION ASSESSMENT
235 Washington Ave
Miami Beach, Florida

Prepared for
Bercow Radell Fernandez Larkin + Tapanes
200 S. Biscayne Boulevard, Suite 300
Miami, FL 33131

Highlights / survey / appendices /

December 19, 2025

PREPARED BY



TABLE OF CONTENTS

I. Introduction	Page 3
II. Methodology	Page 4
III. Structural system	Page 5
IV. Site Observations	Page 6
V. Structural Evaluation	Page 7
VI. Recommendations	Page 11
Appendix A - Photos	
Appendix B – Concrete Testing Report	
Appendix C - Survey	

STRUCTURAL CONDITION ASSESSMENT for
235 Washington Ave
Miami Beach, Florida

I. INTRODUCTION

General

Per the request of Bercow Radell Fernandez Larkin + Tapanes, we have conducted a visual and structural condition assessment on the existing structure located at 235 Washington Avenue in Miami Beach, Florida.

The purpose of the inspections was to assess the structural condition of the property to determine the feasibility of preservation and lifting of the structure to comply with current building code requirements and safe habitability.

Structural System

The Structure is a two-story masonry building. The Building Structural System is as follows:

- First Floor:
 - o Elevated wood floor framing, with wood
 - o Exterior 3 cell concrete masonry unit walls
 - o Interior wood load bearing stud walls
- Second Floor:
 - o Wood floor framing, with wood planking
 - o Exterior 3 cell concrete masonry unit walls
 - o Interior wood load bearing stud walls
- Roof:
 - o Wood floor framing, with wood planking

The components and cladding of the house, such as doors, windows and roof waterproofing are not addressed in this report. Moreover, ownership should perform termite and asbestos testing on the building.

II. METHODOLOGY

This inspection was visual in nature from the exterior and interior of the building. Our office did not perform any destructive or non-destructive testing, however ownership did engage a licensed material testing company, NV5, to perform concrete core samples to test for:

- 1- Concrete compressive strength
- 2- Extent of Carbonation
- 3- Chlorides content

Currently, there are several locations in the building that have decayed wood framing. Every attempt was made to access all portions of the building to observe all signs of distress in the structural members of the building, which includes masonry, wood, and concrete. Distress signs are cracking, spalling, water damage, and termite damage.

III. STRUCTURAL SYSTEMS

Based on Miami Dade County tax records, the structure was built in 1938 with an area of 8,926 square feet. The building is approximately 135 feet long (East-West direction) by 48 feet wide (North-South direction). The building's structural members are as follows:

Foundations: The building is built on shallow foundations about 24" wide x 12" thick. The foundations support a concrete stem walls (interior and exterior). The interior stem walls support the interior wood stud walls and the exterior stem walls support the exterior masonry walls.

Exterior Walls: The exterior walls of the building are made up of 3 cell concrete masonry unit ("CMU") block, which were common construction material in 1938. The walls have a 5/8" stucco smooth finish and rough finish.

Interior Walls: There are two types of interior walls, load bearing and non-load bearing. Both types are wood 2"x4" stud walls. The load bearing walls support the floor joists system extending from the exterior walls. These stud walls are in turn supported by the concrete stem walls and foundations.

Floors: The flooring system is typical on all floors. The wood floor joists are 2"x10" spaced at 16" on center and spanning North-South from the exterior Wood wall over the interior load bearing wood stud walls (running North-South). The joists system is supporting 1"x 6" wood planks make up the 1st and 2nd floor system. All wood joists are "Fire Cut" into the Wood wall, meaning the wood joists are resting in openings in the Wood wall and are not connected to the walls via strapping or any other mechanism.

Roof: Typical of 1938 construction, the actual roof deck is 2"x8" wood joists supporting 1"x6" wood planks. The roof deck is supported by wood knee wall made up of 2"x4" vertical studs. The knee wall in turn is supported by 2"x8" wood joists. The knee wall system is used to slope the actual roof deck for stormwater drainage.

IV. SITE OBSERVATIONS

We have inspected the structure on several occasions, and our summary of the evaluation of the existing conditions of the structural components are as follows:

Wood members: The roof waterproofing has failed in multiple locations, and the moisture intrusion had caused damage to wood members of the building. There is moisture damage (rot) of wood, that has caused wood members to deflect, sag, in multiple areas. There is evidence of active termites, and termite damaged wood members including load bearing walls.

Concrete: The concrete spalling and cracking is evident throughout the building (please see photos). **Concrete columns and beams exhibit concrete spalling that is estimated at 40% of the area.** Stucco cracking is also evident throughout the building. Previous repairs are also present that exhibit failure and re-cracking.

Interior walls and Ceilings: The components and cladding elements of the building and accessories such as doors, windows, louvers, rails, are all in fair to poor condition. Moreover, the roof waterproofing membrane is also in a poor condition. There are various areas with mold and water intrusion present, all exhibit varying levels of failure. There are areas have rotten wood present due to the water intrusion.

V. STRUCTURAL EVALUATION

There are several factors to be considered in the structural evaluation of this building.

Initial Construction:

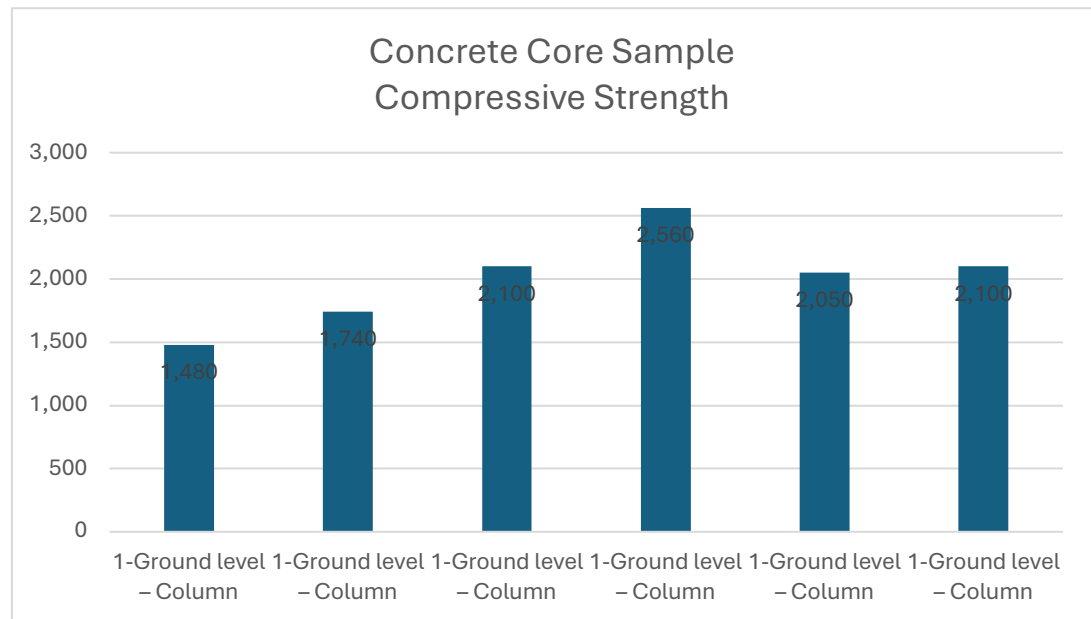
Building construction and standards of the 1930's are considered deficient in today's standards. This applies to this structure and other structures built in the 1930's. This building under current building code is deemed deficient. The structure's roof connections for wind uplift forces, and for wind lateral resistance are non-existent. Moreover, openings protection, and wood reinforcing is also non-existent. To rehabilitate this building, it has to undergo level III alteration of the Florida Building Code 2023 for existing structures. This means that the building has to be strengthened to comply with the current Florida Building Code. Which means that the roof connection tie downs have to be implemented to strengthen the roof, and lateral load structural systems have to be installed such as shearwalls. Wall openings such as doors and windows and the exterior wood walls have to be reinforced. Hence, the foundations also have to be strengthened to resist such lateral loads.

Concrete Testing Results:

Ownership engaged NV5, Inc. to conduct concrete laboratory testing on the building to obtain compressive strength, and carbonation depth. The laboratory extracted three (6) concrete core samples of sizes 3.00 in diameter by 6.00 in length approximately, which also were used to test for carbonation.

-Concrete compressive: the results of the testing for concrete strength are tabulated and charted as follows:

Core	Compressive Strength
Number	[PSI]
1-Ground level – Column	1,480
2-Ground level – Column	1,740
3-Ground level – Column	2,100
4-Ground level – Column	2,560
5-Ground level – Column	2,050
6-Ground level – Column	2,100

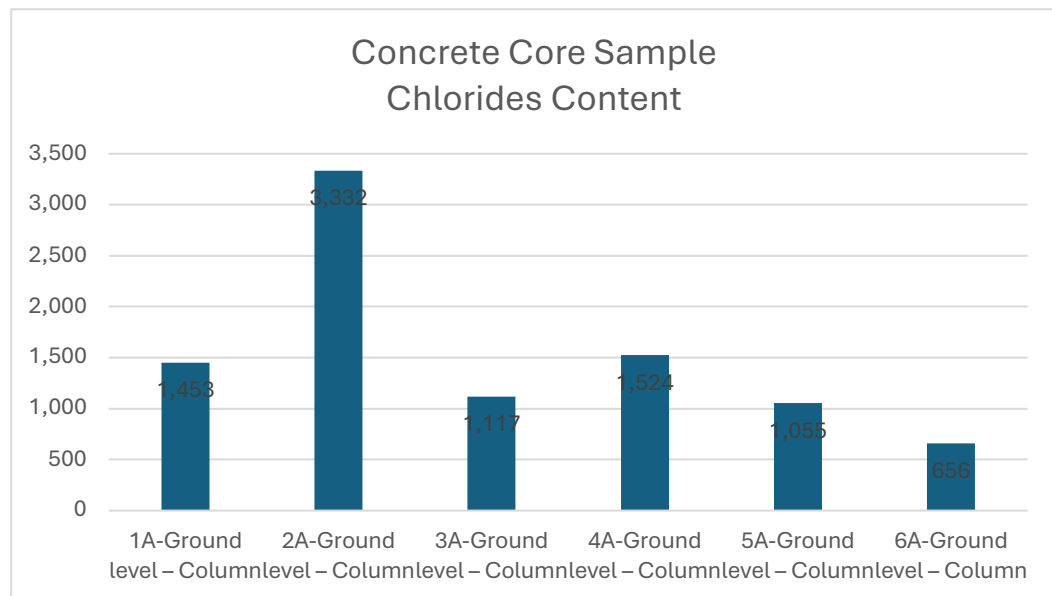


The Concrete compressive strength ranged from 1,480 to 2,560 PSI. Per Florida Building Code the concrete strength should be 5,000 PSI.

- Chloride Content: Due to the exposure to the salty environment in Miami Beach, the concrete structural frame of the building will get contaminated with chlorides by wind and rain. The chlorides will the ph of the concrete mix and lowers the alkaline protection of the steel reinforcing rebars. This leads to corrosion of the reinforcing rebars, then concrete spalling and cracking due to the increased volume of the corroded rebars.

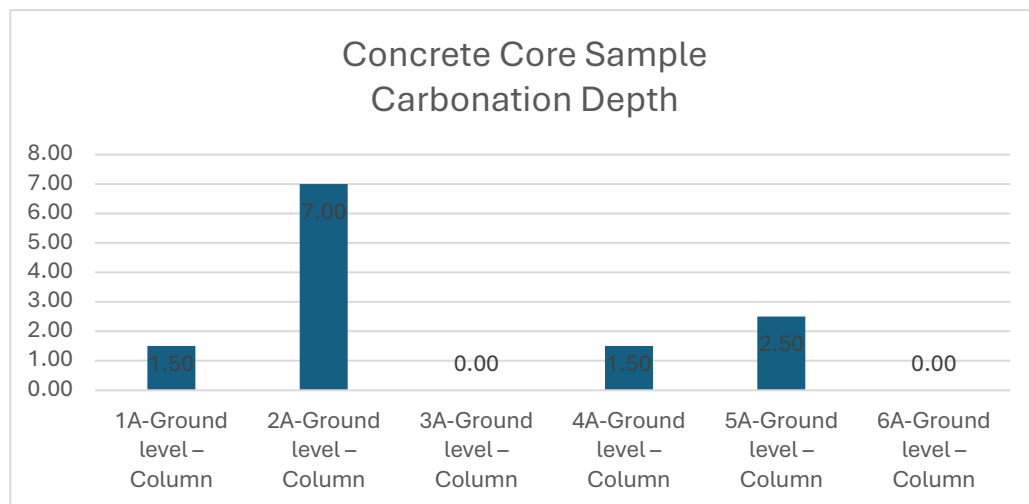
Per American Concrete Institute (ACI 222R), and American Standards for Testing and Materials (ASTM 1152), the acid soluble chloride ion content threshold value typically used in the U.S. is 1.0 to 1.5 pounds of chloride ion per cubic yard of concrete, which translates to a threshold value of 263 ppm to 395 ppm, this is based on weight of concrete of 140 pounds per cubic foot.

Core Number	Chlorides Content [ppm]
1A-Ground level – Column	1,453
2A-Ground level – Column	3,332
3A-Ground level – Column	1,117
4A-Ground level – Column	1,524
5A-Ground level – Column	1,055
6A-Ground level – Column	656



-Carbonation depth: Carbon dioxide from air reacts with the calcium hydroxide in concrete to form calcium carbonate, this process is called carbonation. Carbonation, naturally starts from the exterior surface and progresses inwards. Carbonation actually increases the compressive strength of concrete; however, it also decreases alkalinity, which is essential for corrosion prevention of the reinforcement steel. The results of the testing for carbonation depth are tabulated and charted as follows:

Core Number	Carbonation Depth [in]
1A-Ground level – Column	1.50
2A-Ground level – Column	7.00
3A-Ground level – Column	0.00
4A-Ground level – Column	1.50
5A-Ground level – Column	2.50
6A-Ground level – Column	0.00



The carbonation found in the samples ranged between 0" – 7"

The carbonation is extensive and exposes the reinforcing rebars to corrosion

Site Conditions:

Based on the visual observation in the field, all the wood members of the building such as the roof, floor joists on all floors, and interior stud walls are in fair to poor condition. Moreover, reinforcing rebars of the concrete members are exposed to corrosion due to high chlorides and poor carbonation conditions. The concrete strength is less than standard values which raises the chances of structural failures.

Floor Elevation:

The First finish floor elevation is at 6.1' NGVD. Flood Elevation by FEMA flood maps is at 8.00' NGVD. Hence, the structure is below flood. New construction is built at 10.00' NGVD (flood elevation + 2' flood freeboard).

VI. RECOMMENDATIONS

Based on the site observations of the conditions of structural members of the building and level III alteration required by the Florida Building Code, the structural members of this replaced rather than repaired. Hence, in order to do so, these structural members need to be demolished.

The structure is in moderate to bad condition, leading to deficient structural conditions. The structural members which are mainly wood are deteriorated, moisture damaged and rotting. The Concrete testing demonstrates that the concrete is weak, saturated with chlorides, and has deep carbonation, leading to a very weak concrete structural matrix.

The structure is well below flood elevation and to raise the structure to comply with FEMA flood rules, the structure has to be lifted mechanically. This feat cannot be guaranteed successful based on the deteriorated and damaged structural members of the building.

Based on the concrete testing which averaged 2,005 PSI concrete compressive strength (new construction to comply with current building code concrete is designed for 5,000 PSI) shows that the lifting process will cause serious damage to the foundations.

Furthermore, the carbonation extends deep into the concrete indicates that all the reinforcing rebars have lost their alkaline protection layer and are exposed to corrosion.

We are not confident that the replacement process will not damage the structure, even furthermore due to the connectivity between the members.

Structure does not comply with today's building code, and even when certain parts of it were built. The materials of the structural systems are compromised and cannot support the loads imposed on it, we recommend demolition of the structure.

APPENDIX A

PHOTOS



Spall and delaminated stucco and concrete present



Spall and delaminated stucco and concrete present



Spall and delaminated stucco and concrete present



Spall and delaminated stucco and concrete present



Spall and delaminated stucco and concrete present



Termite dropping and stud damage

Cracks noted leading to foundations

Termite damages noticed on wood floors

Water intrusion damages noted

Skylights failure noticed

Deflections noticed on foundations

Mold present in interior finishes due to water intrusion

Water intrusion thru windows

Water intrusion noticed coming from roof

Appendix B - Concrete Testing

December 22, 2025

Mr. John Marshall
251 Washington LLC
PO Box 190778
Miami Beach, FL 33139

Re: Report of Core Compressive Strength and Chemical Analysis Tests
235 Washington Avenue Concrete Core Tests
235 Washington Avenue
Miami Beach, Florida 33319
NV5 Project No.: 19019.00

Dear Mr. Marshall:

NV5, Inc. submits this report in fulfillment of the scope of services described in our Proposal No. 25-0895 dated November 13, 2025. This report describes our understanding of the project, presents our field and laboratory testing results.

This report should be read in its entirety.

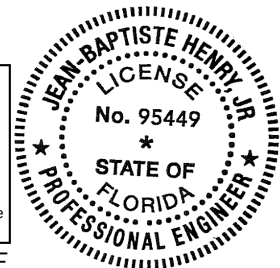
Sincerely,
NV5, Inc.


Ralph Numa
Project Manager

This document has been digitally signed and sealed by:

Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.

Jean-Baptiste Henry Jr., P.E.
Project Manager
Florida License No. 95449



Distribution: 1 Copy to Addressee via Email
 1 Copy to NV5 File

F:\Doc\Nv5 Reports\19019.00_235 Washington Avenue Concrete Core Testing_235 Washington Avenue_Miami Beach_FL_GPR_Concrete Core Compressive Strength, Chloride, Carbonation_251 Washington LLC_12-22-2025.Doc

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1.0 SITE AND PROJECT INFORMATION.....	1
2.0 PURPOSE AND SCOPE OF WORK.....	1
3.0 FIELD WORK	1
4.0 LABORATORY TESTING RESULTS.....	2
4.1 CONCRETE CORES FOR COMPRESSIVE STRENGTH TESTING	2
4.2 CONCRETE CORES FOR CHEMICAL ANALYSIS	2
5.0 REPORT LIMITATIONS	3
6.0 CLOSURE.....	3

FIGURES

Drawing 1 Site Vicinity Map and Test Location Plan

APPENDICES

Appendix A: Photographs of The Core Samples (2 pages)
Appendix B: Core Compressive Strength Test Results (1 page)
Appendix C: A&S Lab Report: Acid-Soluble Chloride Ion Content (6 pages)
Appendix D: A&S Lab Report: Depth of Carbonation (6 pages)

1.0 SITE AND PROJECT INFORMATION

The project site is located at 235 Washington Avenue in Miami Beach, Florida. According to Miami-Dade Property Appraiser page, the site corresponds to Folio No. 02-4203-003-1070. The rectangular shaped property is currently occupied by an existing two-story building.

On November 10, 2025, Youssef Hachem Consulting Engineering (YHCE) requested in-situ concrete testing of existing columns at locations designated by the structural engineer or its representatives. The scope initially included sixteen (16) concrete cores for compressive strength, acid-soluble chloride ion content, and carbonation depth testing.

Due to difficulty locating concrete columns, CMU block was found beneath the stucco finish, which required removal prior to coring. YHCE subsequently authorized the extraction of twelve (12) concrete cores, which were tested for compressive strength, acid-soluble chloride ion content, and carbonation depth. Please note that the dates for the concrete pour were not provided.

2.0 PURPOSE AND SCOPE OF WORK

The purpose of our services was to extract concrete cores and test the cores extracted in the laboratory for compressive strength, acid-soluble chloride, and depth of carbonation.

3.0 FIELD WORK

On November 20, 2025, an NV5 representative extracted twelve (12) concrete cores from exposed column locations selected by Youssef Hachem Consulting Engineering (YHCE). The cores were numbered as 1-6 and 1A through 6A as shown in Figure 1.

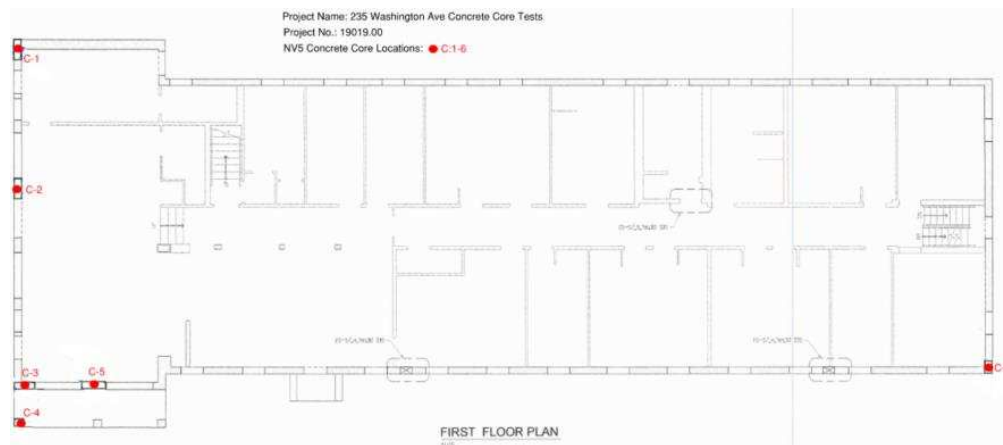


Figure 1: Concrete Core Locations (Red)

Prior to coring, the selected areas were scanned using ground penetrating radar (GPR) to identify reinforcing steel and minimize the risk of damage. A GSSI radar system equipped with a 350-MHz antenna was used for this purpose.

Concrete coring was performed in general accordance with ASTM C42-20. Immediately upon completion of the coring process, the cores were promptly sealed and transported to the laboratory

for compressive strength, acid-soluble chloride ion content, and carbonation depth testing. The results are summarized in Section 4.0.

Core Number	Core Location	Test Performed	Core Number	Core Location	Test Performed
1	Column - See Drawing	Compressive Strength	1A	Column - See Drawing	Acid Soluble Chloride-Ion/Carbonation Tests
2	Column - See Drawing	Compressive Strength	2A	Column - See Drawing	Acid Soluble Chloride-Ion/Carbonation Tests
3	Column - See Drawing	Compressive Strength	3A	Column - See Drawing	Acid Soluble Chloride-Ion/Carbonation Tests
4	Column - See Drawing	Compressive Strength	4A	Column - See Drawing	Acid Soluble Chloride-Ion/Carbonation Tests
5	Column - See Drawing	Compressive Strength	5A	Column - See Drawing	Acid Soluble Chloride-Ion/Carbonation Tests
6	Column - See Drawing	Compressive Strength	6A	Column - See Drawing	Acid Soluble Chloride-Ion/Carbonation Tests

Figure 2: Concrete Cores Proposed Testing Type

4.0 LABORATORY TESTING RESULTS

4.1 CONCRETE CORES FOR COMPRESSIVE STRENGTH TESTING

Concrete cores 1 through 6 were measured, trimmed and tested in general accordance with ASTM C42-20. The cores exhibited compressive strengths ranging from 1,480 to 2,560 psi, with unit weights between 127.81 and 133.08 pcf.

Detailed compressive strength results for the core samples are provided in Appendix B.

4.2 CONCRETE CORES FOR CHEMICAL ANALYSIS

Concrete core 1A through 6A were sent to A&S Laboratories for chemical analysis (acid-soluble chloride-ion content and depth of carbonation).

Acid Soluble Chloride-Ion Content

Acid-soluble chloride testing was performed in general accordance with ASTM C1152, *Standard Test Method for Acid-Soluble Chloride in Mortar and Concrete*.

The concrete core chloride-ion content ranged between 656 and 3,332 parts per million (ppm)*. The chloride concentration of each individual sample has been included in A&S Laboratories Test Reports in Appendix C.

*Note *: - As per ACI 222R and ASTM 1152, the acid-soluble chloride ion content threshold value typically used in the U.S. is 1.0 to 1.5 pounds of chloride ion per cubic yard of concrete, which translates to a threshold value of 263 ppm to 395 ppm; this is based on an assumption of a unit weight of concrete of 140 pounds per cubic feet.*

Depth of Carbonation

The depth of carbonation test was performed in accordance with ASTM C856, *Standard Practice for Petrographic Examination of Hardened Concrete* to determine the depth of carbonation. Sections of the concrete samples were freshly exposed, and a pH indicator solution (phenolphthalein) was applied to the exposed area. The depth of carbonation results of each individual sample has been included in A&S Laboratories Test Reports shown in Appendix D.

5.0 REPORT LIMITATIONS

This report has been prepared pursuant to NV5 Proposal No. 25-0895 dated November 13, 2025. This report should be read in its entirety. NV5 is not responsible for misinterpretations arising from only reading sections of the report.

This report has been prepared for the exclusive use of the Owner and other members of the design/construction team for the specific site and project discussed in this report. This report is not applicable to any other site or project.

Information about the age of the concrete and the type of reinforcement embedded in the concrete elements scanned was not provided to us. The tests were performed in general accordance with the procedures described above and the results presented in this report are representative of the in-situ conditions only at the specific locations tested. The structural engineer should evaluate these results accordingly.

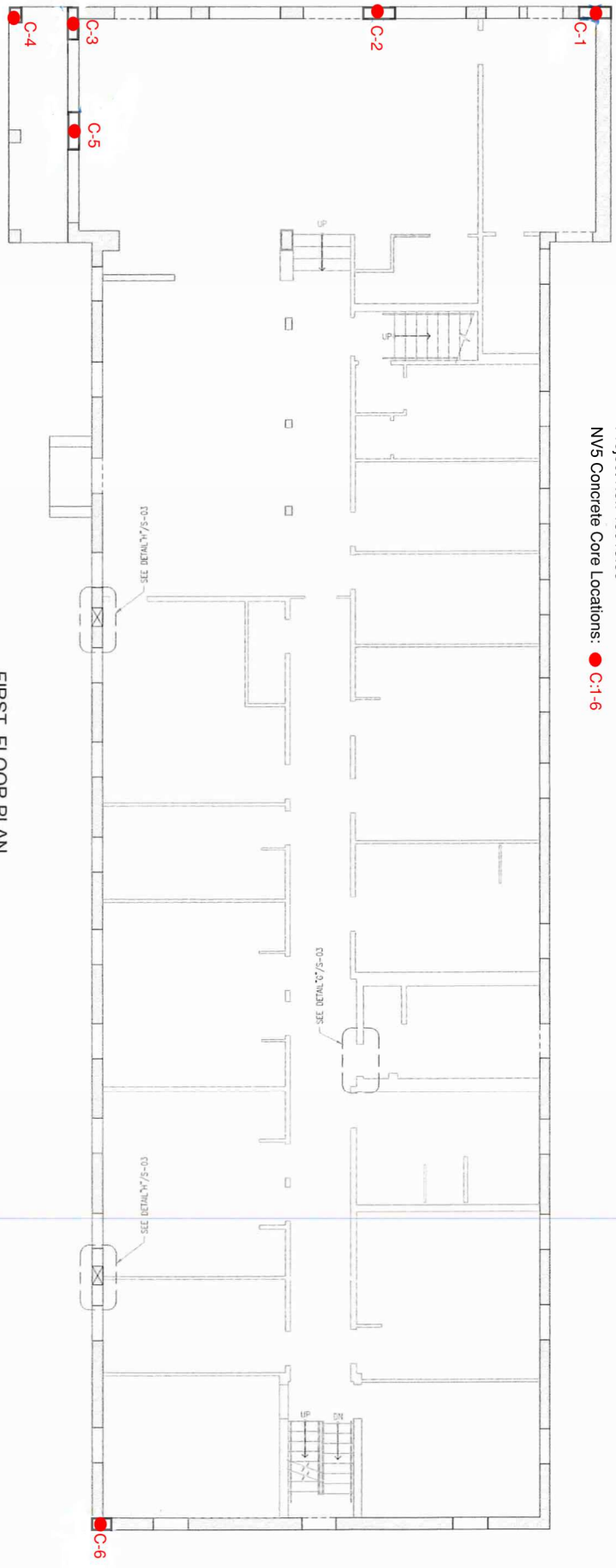
6.0 CLOSURE

We appreciate the opportunity to provide specialized engineering services on this project and look forward to an opportunity to participate in construction related aspects of the development. If you have questions about information contained in this report, please contact the undersigned at 305-666-3563.



DRAWING 1

Project Name: 235 Washington Ave Concrete Core Tests
Project No.: 19019.00
NV5 Concrete Core Locations: ● C-1-6



FIRST FLOOR PLAN
N/S

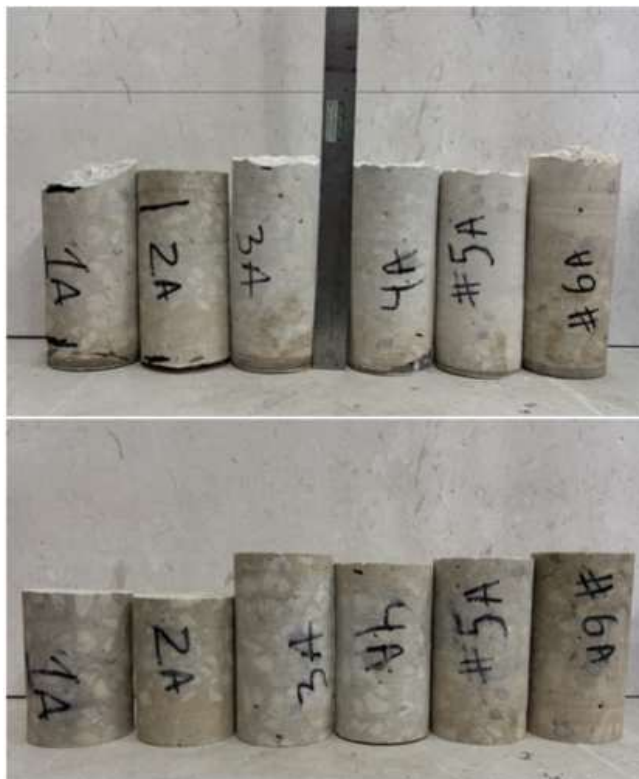
APPENDIX A

Photographs of The Core Samples





Photograph #1: Concrete Cores Extracted and Bagged for Laboratory Testing



Photograph #2: Concrete Cores Before and After Preparation for Compressive Strength

NIV5

APPENDIX B

Concrete Core Compressive Strength Test Results



CORES COMPRESSIVE STRENGTH REPORT

NV5, INC.

14486 COMMERCE WAY, MIAMI LAKES FL 33016
TELEPHONE NO. 305-666-3563 FAX NO.: 305-666-3069

PROJECT NAME: 235 Washington Avenue - Concrete Cores

CLIENT: 251 Washington LLC

CONTRACTOR: YHCE

TEST METHOD: In general accordance with ASTM C4220

PROJECT NUMBER: 19019

SAMPLE BY: NV5

SPECIFIED STRENGTH (PSI): Not Provided

CONCRETE SUPPLIER: Not Provided

DATE: 11/26/2025

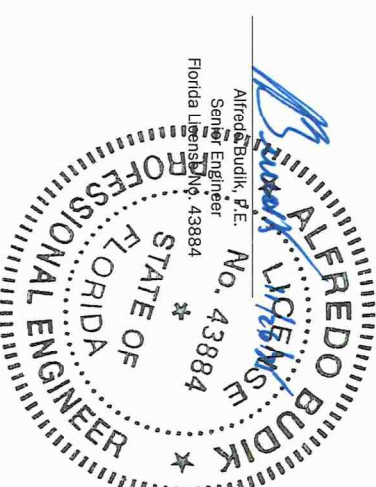
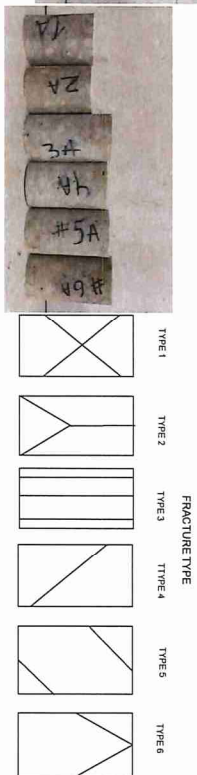
SET NO.: 1A to 6A

PAGE NO.: 1

Core	Core Location	Structural Element	Core Dimensions				Compressive Strength				Fracture Type	Maximum Nominal Aggregate Size	Pour Date	Core Date	Preparation Date	Test Date	Core Weight (lbs.)	Core Unit Weight (lbs./ft³)
			Diameter (inches)	Lengths		Cross Sectional Area (sq.inches)	Maximum Load (lbs.)	L/D	Correction Factor	Approx. Compressive Strength (psi)								
				Original (inches)	After Trimmed & Grinded (inches)													
1A	Ground Level	Column	3.24	7.13	4.62	8.25	12,802	1.42	0.96	1,480	3	#57	Not Provided	11/20/2025	11/21/2025	11/26/2025	2.93	133.08
2A	Ground Level	Column	3.24	7.03	4.62	8.25	15,145	1.42	0.95	1,740	4	#57	Not Provided	11/20/2025	11/21/2025	11/26/2025	2.91	132.15
3A	Ground Level	Column	3.24	7.74	5.98	8.25	17,322	1.84	1.00	2,100	4	#57	Not Provided	11/20/2025	11/21/2025	11/26/2025	3.68	128.83
4A	Ground Level	Column	3.24	7.65	5.64	8.25	21,601	1.74	0.98	2,560	4	#57	Not Provided	11/20/2025	11/21/2025	11/26/2025	3.44	127.81
5A	Ground Level	Column	3.24	7.31	5.89	8.25	16,878	1.82	1.00	2,050	3	#57	Not Provided	11/20/2025	11/21/2025	11/26/2025	3.66	130.24
6A	Ground Level	Column	3.24	8.30	6.06	8.25	17,312	1.87	1.00	2,100	4	#57	Not Provided	11/20/2025	11/21/2025	11/26/2025	3.75	129.69

Notes

1. According to ACI 318 and Note 4 of ASTM C42, "The concrete represented by the cores is considered structurally adequate if the average strength of three cores is at least 85% of the specified strength and no single core strength is less than 75% of the specified strength". Compressive strength results should be reviewed by the Engineer of Record for acceptance.
2. Direction of load application is Parallel and moisture condition is bagged.
3. According to ASTM C42-20 - "Allow the cores to remain in the sealed plastic bags or nonabsorbent containers for at least 5 days after last being wetted and before testing, unless stipulated otherwise by the specifier of tests".
4. Due to tightly spaced reinforcing steel, the core diameter had to be reduced under the recommended diameter described in ASTM C42 with the approval of the structure Engineer.
5. All cores were trimmed and grinded prior to compressive strength testing.
- 7 N/P - Not Provided.



APPENDIX C
A&S Lab Report: Acid-Soluble Chloride Ion Content



**A & S Laboratories
11415 Challenger Ave
Odessa, FL 33556
Phone: (727)375-0388**

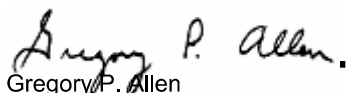
TEST REPORT

A & S Project Number: 112683
Purchase Order Number N/A
Customer: NV5
Plant: 235 Washington Avenue
Attention: Ralph Numa

The results of tests performed in accordance with ASTM C1152 Acid Soluble Chloride in Mortar and Concrete are as follows:

Client ID Number: 1A
Mix Number: N/A
Project Number: N/A
Class: N/A
Date Sample Cast: 11/20/2025
Date Sample Tested: 12/17/2025
Cement Weight (lbs.): 0
Percent Chloride lbs. / c.y.: 5.8138
Core Weight (lbs./c.y.): 4,000
Chloride Content (mg/kg) 1,453 ppm
Percent Chloride Content: 0.1453%
Percent Chloride by Mass of Cement: N/A*

*** This result is based on client supplied data. The percent chloride by mass of cement may be an estimated value. The client should provide a mix design when possible for an accurate calculation.**


Gregory P. Allen
Lab Director

**A & S Laboratories
11415 Challenger Ave
Odessa, FL 33556
Phone: (727)375-0388**

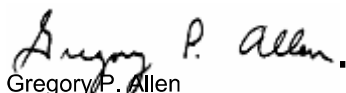
TEST REPORT

A & S Project Number: 112684
Purchase Order Number N/A
Customer: NV5
Plant: 235 Washington Avenue
Attention: Ralph Numa

The results of tests performed in accordance with ASTM C1152 Acid Soluble Chloride in Mortar and Concrete are as follows:

Client ID Number: 2A
Mix Number: N/A
Project Number: N/A
Class: N/A
Date Sample Cast: 11/20/2025
Date Sample Tested: 12/17/2025
Cement Weight (lbs.): 0
Percent Chloride lbs. / c.y.: 13.3292
Core Weight (lbs./c.y.): 4,000
Chloride Content (mg/kg) 3,332 ppm
Percent Chloride Content: 0.3332%
Percent Chloride by Mass of Cement: N/A*

*** This result is based on client supplied data. The percent chloride by mass of cement may be an estimated value. The client should provide a mix design when possible for an accurate calculation.**


Gregory P. Allen
Lab Director

**A & S Laboratories
11415 Challenger Ave
Odessa, FL 33556
Phone: (727)375-0388**

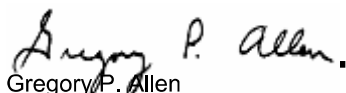
TEST REPORT

A & S Project Number: 112685
Purchase Order Number N/A
Customer: NV5
Plant: 235 Washington Avenue
Attention: Ralph Numa

The results of tests performed in accordance with ASTM C1152 Acid Soluble Chloride in Mortar and Concrete are as follows:

Client ID Number: 3A
Mix Number: N/A
Project Number: N/A
Class: N/A
Date Sample Cast: 11/20/2025
Date Sample Tested: 12/17/2025
Cement Weight (lbs.): 0
Percent Chloride lbs. / c.y.: 4.4667
Core Weight (lbs./c.y.): 4,000
Chloride Content (mg/kg) 1,117 ppm
Percent Chloride Content: 0.1117%
Percent Chloride by Mass of Cement: N/A*

*** This result is based on client supplied data. The percent chloride by mass of cement may be an estimated value. The client should provide a mix design when possible for an accurate calculation.**


Gregory P. Allen
Lab Director

**A & S Laboratories
11415 Challenger Ave
Odessa, FL 33556
Phone: (727)375-0388**

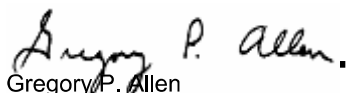
TEST REPORT

A & S Project Number: 112686
Purchase Order Number N/A
Customer: NV5
Plant: 235 Washington Avenue
Attention: Ralph Numa

The results of tests performed in accordance with ASTM C1152 Acid Soluble Chloride in Mortar and Concrete are as follows:

Client ID Number: 4A
Mix Number: N/A
Project Number: N/A
Class: N/A
Date Sample Cast: 11/20/2025
Date Sample Tested: 12/17/2025
Cement Weight (lbs.): 0
Percent Chloride lbs. / c.y.: 6.0974
Core Weight (lbs./c.y.): 4,000
Chloride Content (mg/kg) 1,524 ppm
Percent Chloride Content: 0.1524%
Percent Chloride by Mass of Cement: N/A*

*** This result is based on client supplied data. The percent chloride by mass of cement may be an estimated value. The client should provide a mix design when possible for an accurate calculation.**


Gregory P. Allen
Lab Director

**A & S Laboratories
11415 Challenger Ave
Odessa, FL 33556
Phone: (727)375-0388**

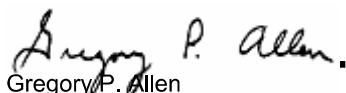
TEST REPORT

A & S Project Number: 112687
Purchase Order Number N/A
Customer: NV5
Plant: 235 Washington Avenue
Attention: Ralph Numa

The results of tests performed in accordance with ASTM C1152 Acid Soluble Chloride in Mortar and Concrete are as follows:

Client ID Number: 5A
Mix Number: N/A
Project Number: N/A
Class: N/A
Date Sample Cast: 11/20/2025
Date Sample Tested: 12/17/2025
Cement Weight (lbs.): 0
Percent Chloride lbs. / c.y.: 4.2186
Core Weight (lbs./c.y.): 4,000
Chloride Content (mg/kg) 1,055 ppm
Percent Chloride Content: 0.1055%
Percent Chloride by Mass of Cement: N/A*

*** This result is based on client supplied data. The percent chloride by mass of cement may be an estimated value. The client should provide a mix design when possible for an accurate calculation.**


Gregory P. Allen
Lab Director

**A & S Laboratories
11415 Challenger Ave
Odessa, FL 33556
Phone: (727)375-0388**

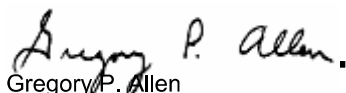
TEST REPORT

A & S Project Number: 112688
Purchase Order Number N/A
Customer: NV5
Plant: 235 Washington Avenue
Attention: Ralph Numa

The results of tests performed in accordance with ASTM C1152 Acid Soluble Chloride in Mortar and Concrete are as follows:

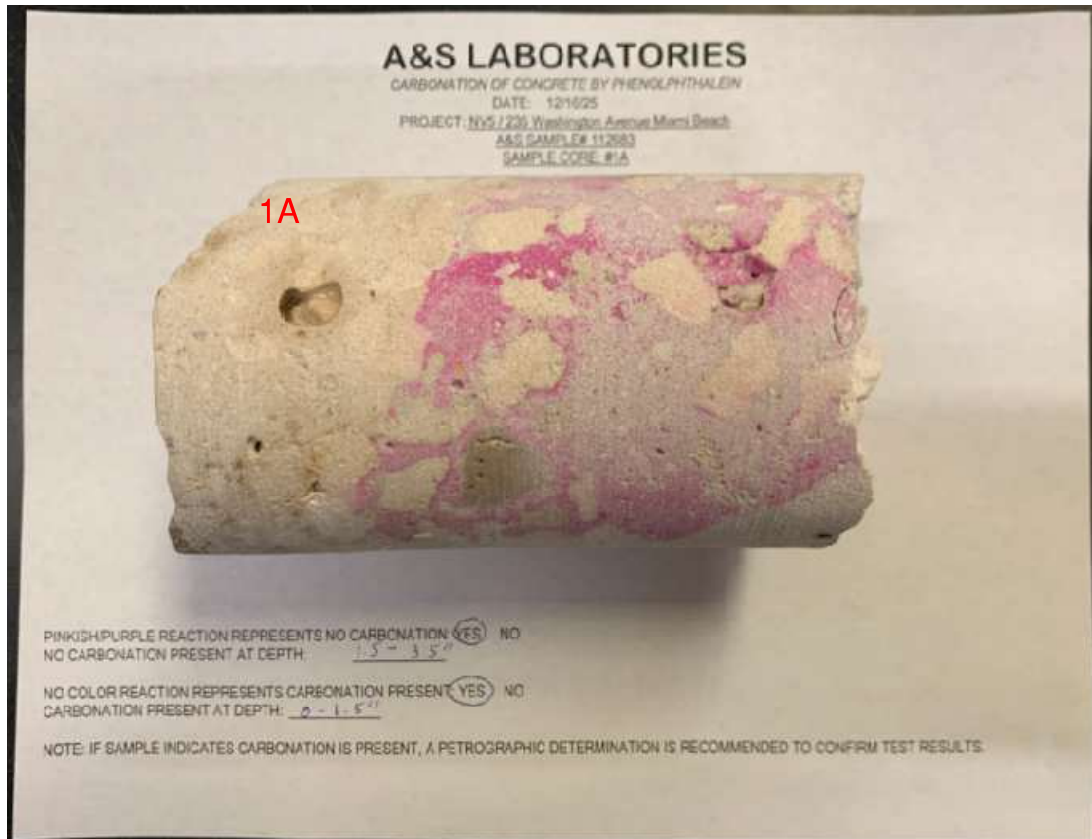
Client ID Number: 6A
Mix Number: N/A
Project Number: N/A
Class: N/A
Date Sample Cast: 11/20/2025
Date Sample Tested: 12/17/2025
Cement Weight (lbs.): 0
Percent Chloride lbs. / c.y.: 2.6233
Core Weight (lbs./c.y.): 4,000
Chloride Content (mg/kg) 656 ppm
Percent Chloride Content: 0.0656%
Percent Chloride by Mass of Cement: N/A*

*** This result is based on client supplied data. The percent chloride by mass of cement may be an estimated value. The client should provide a mix design when possible for an accurate calculation.**

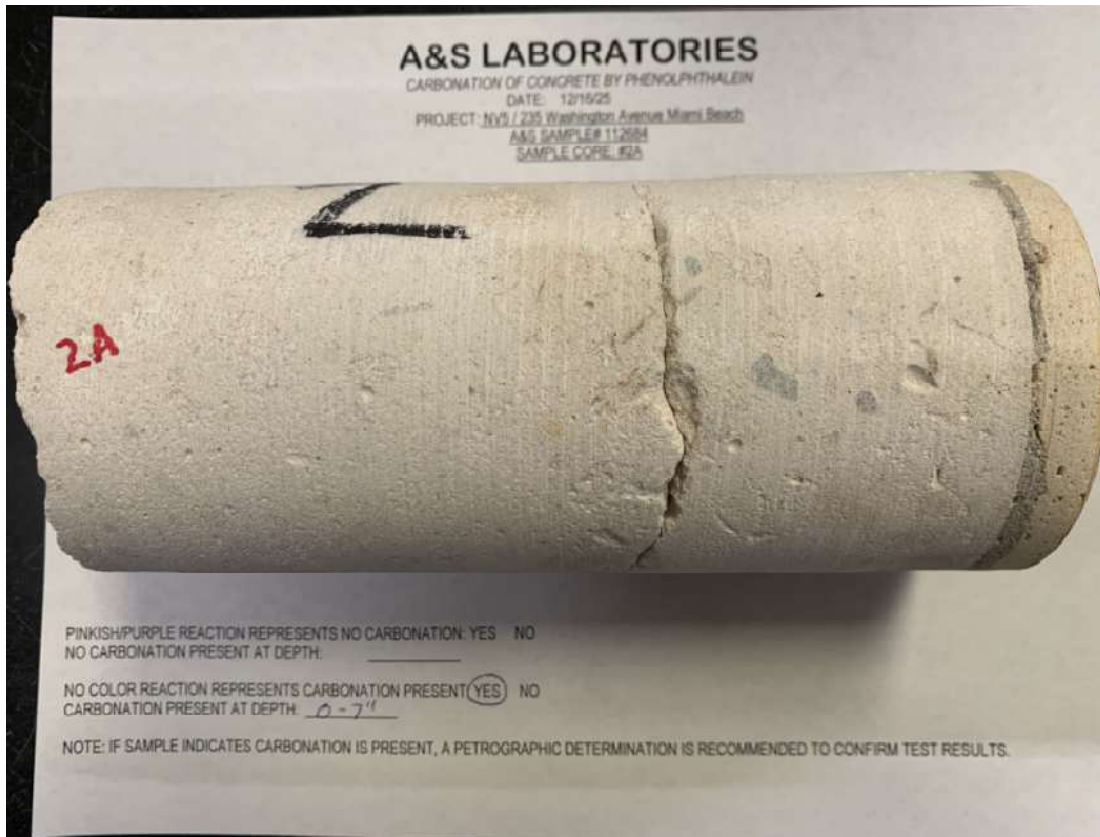

Gregory P. Allen
Lab Director

APPENDIX D
A&S Lab Report: Depth of Carbonation

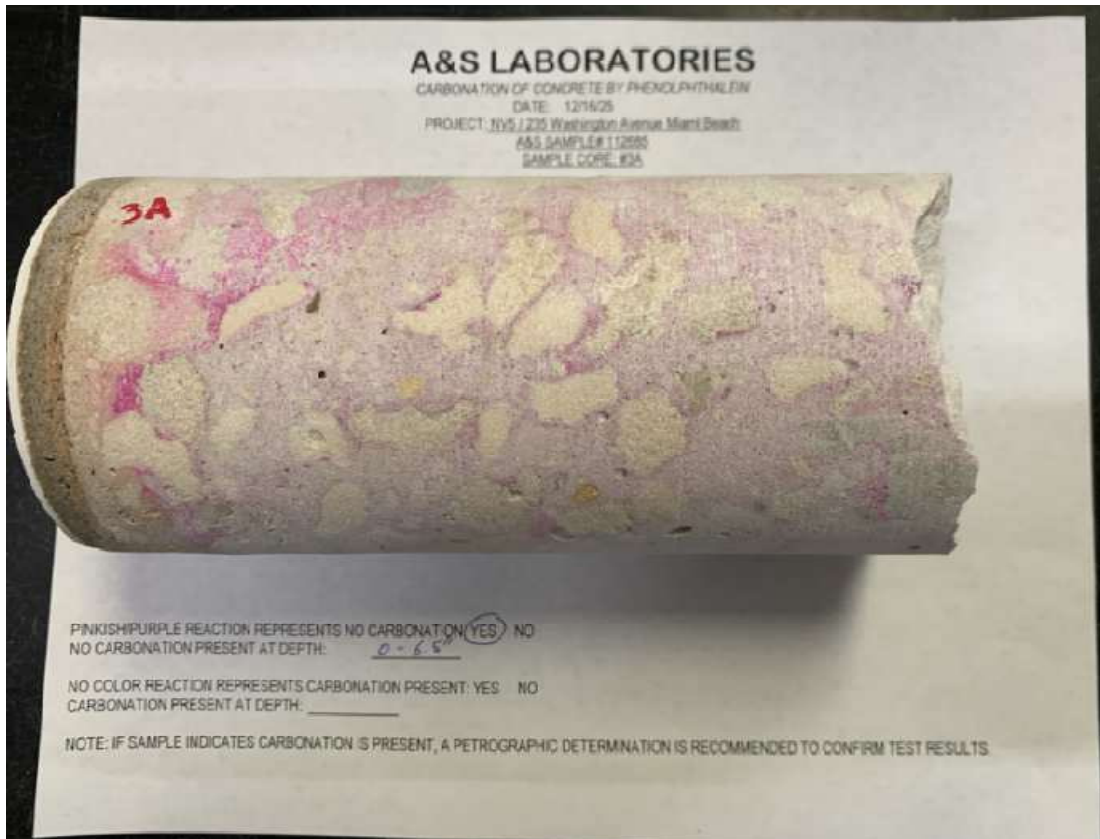




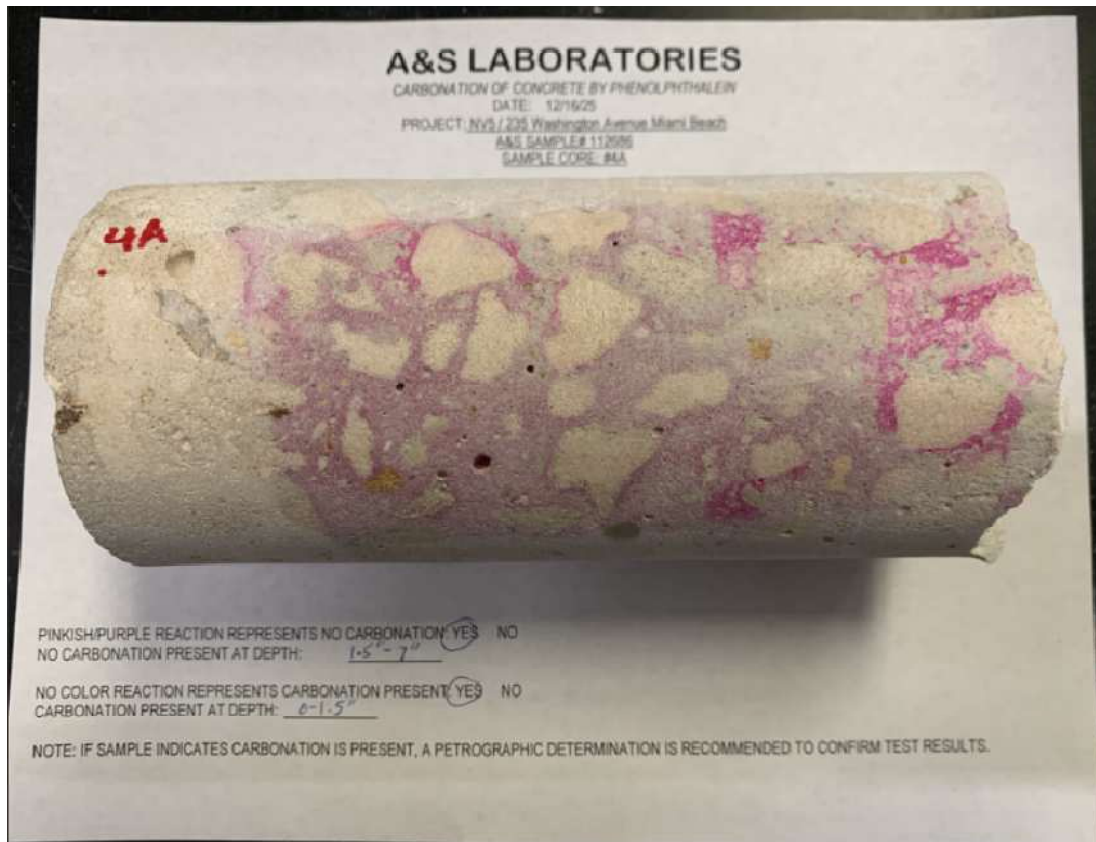
Photograph #3: Concrete Cores #1A Depth of Carbonation Testing



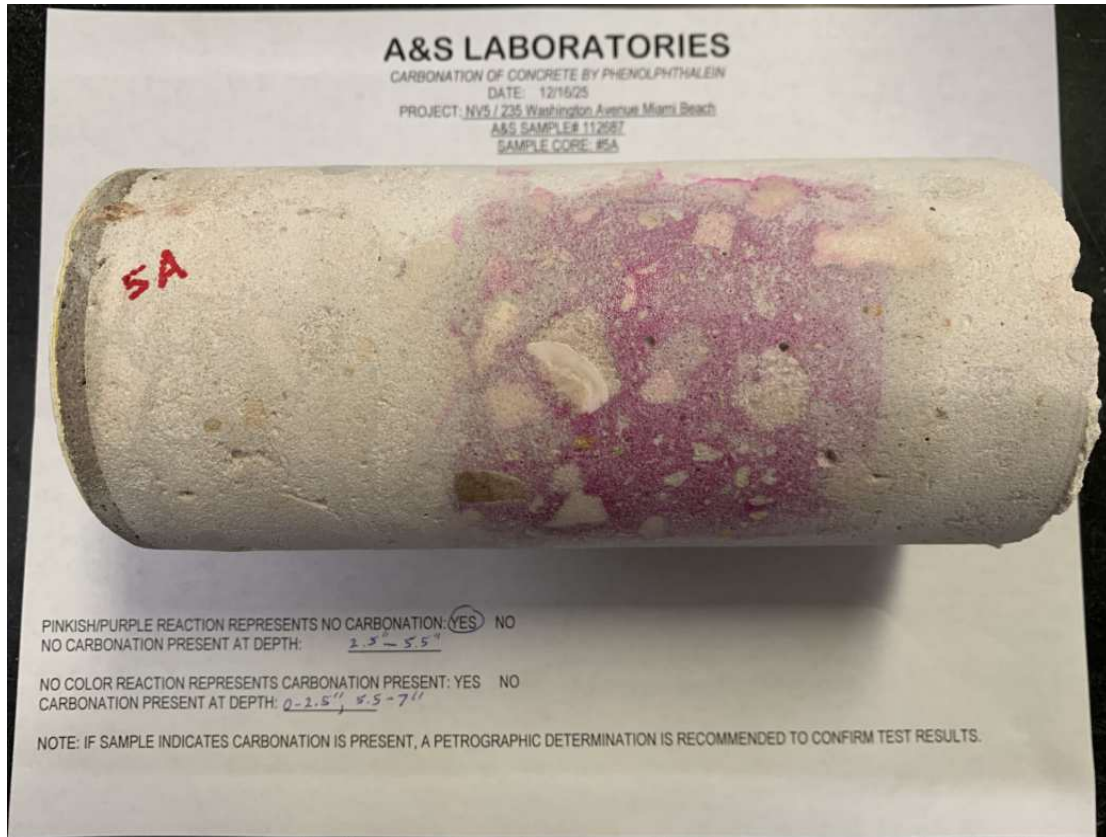
Photograph #4: Concrete Cores #2A Depth of Carbonation Testing



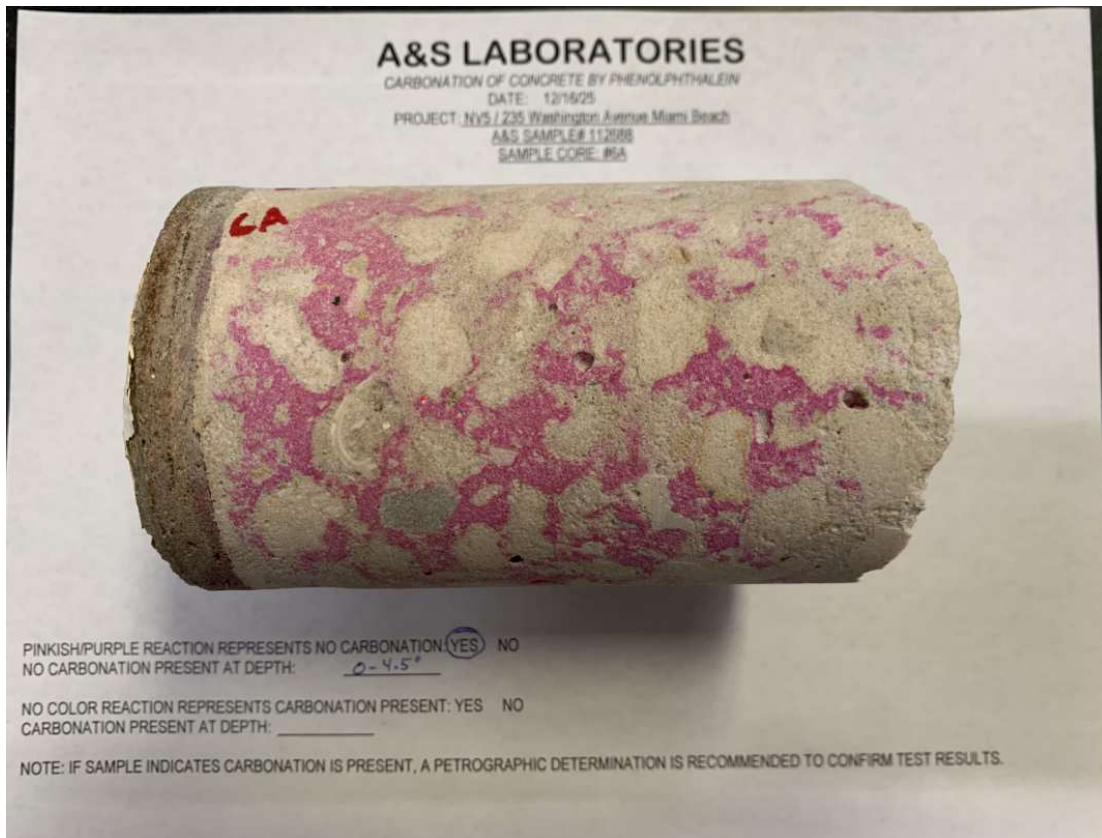
Photograph #5: Concrete Cores #3A Depth of Carbonation Testing



Photograph #6: Concrete Cores #4A Depth of Carbonation Testing



Photograph #7: Concrete Cores #5A Depth of Carbonation Testing



Photograph #8: Concrete Cores #6A Depth of Carbonation Testing

Appendix C - Survey

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1–9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION				FOR INSURANCE COMPANY USE	
A1. Building Owner's Name JOHN MARSHALL				Policy Number: X	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 235 WASHINGTON AVENUE				Company NAIC Number:	
City MIAMI BEACH	MIAMI-DADE CO. B.M. AC0474	State Florida	NGVD 1929 N A X	ZIP Code 33139 X	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) TAX PARCEL NUMBER 0242030031070				N A X X	
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) COMMERCIAL				6 1 X	
A5. Latitude/Longitude: Lat. 25.77182 Long. -80.13428				X Horizontal Datum: ☒ NAD 1927 ☒ NAD 1983	
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.				X X	
A7. Building Diagram Number 8				N A X	
A8. For a building with a crawlspace or enclosure(s):				N A X N A X X	
a) Square footage of crawlspace or enclosure(s) 4,998 sq ft				6 1 X	
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade 22				6 2 X	
c) Total net area of flood openings in A8.b 1,901 sq in				N A X	
d) Engineered flood openings? ☐ Yes ☒ No					
A9. For a building with an attached garage:					
a) Square footage of attached garage N/A sq ft					
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade N/A					
c) Total net area of flood openings in A9.b N/A sq in					
CLYDE MCNEAL LB 8111					
d) Engineered flood openings? ☐ Yes ☒ No					
SURVEYOR					
SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. FIRM Community Name & Community Number NEXGEN SURVEYING, LLC. CITY OF MIAMI BEACH 120651			B2. County Name MIAMI-DADE COUNTY		B3. State Florida
B4. Map/Panel Number 1421 OGLETHORPE ROAD WEST PALM BEACH 12086C0319	B5. Suffix L	B6. FIRM Index Date 09/11/2009	B7. FIRM Panel Effective/Revised Date Florida 09/11/2009	B8. Flood Zone(s) 33405 AE	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 8 FT.
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: 03/02/2023 (561) 508-6272 ☐ FIS Profile ☒ FIRM ☐ Community Determined ☐ Other/Source: _____					
B11. Indicate elevation datum used for BFE in Item B9: ☒ NGVD 1929 ☐ NAVD 1988 ☐ Other/Source: _____ This information is being collected for the primary purpose of estimating the risk premium rates necessary to provide flood insurance and is not to be used for any construction permitting purposes.					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☒ No Latitude/Longitude in A5 derived from Google Maps: Designation Date: N/A ☐ CBRS ☐ OPA					
Photo Taken 03/01/2023 "Side View"					

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 235 WASHINGTON AVENUE			Policy Number:
City MIAMI BEACH	State Florida	ZIP Code 33139	Company NAIC Number

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

Building elevations are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☒ Finished Construction
 *A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO. Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: MIAMI-DADE CO. B.M. AC0474 Vertical Datum: NGVD 1929

Indicate elevation datum used for the elevations in items a) through h) below. ☒ NGVD 1929 ☐ NAVD 1988 ☐ Other/Source: _____

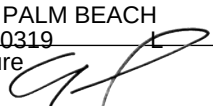
TAX PARCEL NUMBER 0242030031070 Datum used for building elevations must be the same as that used for the BFE. ☒ Check the measurement used.

a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	COMMERCIAL	☒ feet	☐ meters
b) Top of the next higher floor	25.77182 -80.13428	☒ feet	☒ meters
c) Bottom of the lowest horizontal structural member (V Zones only)	N. A	☒ feet	☐ meters
d) Attached garage (top of slab)	N. A	☒ feet	☐ meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	N. A	☒ feet	☐ meters
f) Lowest adjacent (finished) grade next to building (LAG)	4.998	☒ feet	☐ meters
g) Highest adjacent (finished) grade next to building (HAG)	6.2	☒ feet	☐ meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	1.901	☒ feet	☐ meters

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

Were latitude and longitude in Section A provided by a licensed land surveyor? ☒ Yes ☐ No Florida ☐ Check here N/A Attachments.

Certifier's Name CLYDE MCNEAL	N/A License Number LB 8111	Florida
Title SURVEYOR		
Company Name NEXGEN SURVEYING, LLC.		
Address CITY OF MIAMI BEACH 120651 1421 OLGLETHORPE ROAD	MIAMI-DADE COUNTY	
City WEST PALM BEACH 12086C0319	State Florida 09/11/2009	
Signature 	Date 03/02/2023	Telephone (561) 508-6272

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner. ☒

Comments (including type of equipment and location, per C2(e), if applicable)

This information is being collected for the primary purpose of estimating the risk premium rates necessary to provide flood insurance and is not to be used for any construction permitting purposes. ☒

Latitude/Longitude in A5 derived from Google Maps. ☒

N/A

Photo Taken 03/01/2023 "Side View"

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 235 WASHINGTON AVENUE			Policy Number:
City MIAMI BEACH	State Florida	ZIP Code 33139	Company NAIC Number

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

JOHN MARSHALL
For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG). NGVD 1929

a) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ N . A _____ ☒ feet ☐ meters ☒ above or ☐ below the HAG.

b) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ N . A _____ ☒ feet ☐ meters ☒ above or ☐ below the LAG.

E2. For Building Diagrams 6–9 with permanent flood openings provided in Section C or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____ -8013428 _____ ☒ feet ☒ meters ☒ above or ☒ below the HAG.

E3. Attached garage (top of slab) is _____ N . A _____ ☒ feet ☐ meters ☒ above or ☐ below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is _____ N . A _____ ☒ feet ☐ meters ☒ above or ☐ below the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? ☐ Yes ☐ No ☐ Unknown. The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name
N/A

Address
Photo Taken 03/01/2023 "Side View"

City
×

State
Florida

ZIP Code
N/A

Signature
CLYDE MCNEAL

Date
LB 8111

Telephone

Comments
×

SURVEYOR

NEXGEN SURVEYING, LLC.
CITY OF MIAMI BEACH 120651
1421 OLGLETHORPE ROAD

MIAMI-DADE COUNTY
Florida

WEST PALM BEACH
12086C0319 L 09/11/2009 Florida 09/11/2009 33405 AE 8 FT.

03/02/2023 (561) 508-6272

×

This information is being collected for the primary purpose of estimating the risk premium rates necessary to provide flood insurance and is not to be used for any construction permitting purposes.

Latitude/Longitude in A5 derived from Google Maps.

N/A

Photo Taken 03/01/2023 "Side View"

☐ Check here if attachments.

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.				FOR INSURANCE COMPANY USE	
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 235 WASHINGTON AVENUE				Policy Number:	
City MIAMI BEACH	State Florida	ZIP Code 33139	Company NAIC Number		
SECTION G – COMMUNITY INFORMATION (OPTIONAL)					
The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters. G1. ☐ The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.) G2. ☐ A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO G3. ☐ The following information (Items G4–G10) is provided for community floodplain management purposes.					
G4. Permit Number 25.77182	G5. Date Permit Issued 8/11/2023	G6. Date Certificate of Compliance/Occupancy Issued 8/11/2023			
G7. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement					
G8. Elevation of as-built lowest floor (including basement) of the building: 4,998					
G9. BFE or (in Zone AO) depth of flooding at the building site: 1,901					
G10. Community's design flood elevation:					
Local Official's Name N/A		Title			
Community Name Photo Taken 03/01/2023 "Side View"		Telephone N/A		Florida N/A	
Signature CLAYDE MCNEAL		Date LB 8111			
SURVEYOR Comments (including type of equipment and location, per C2(e), if applicable) NEXGEN SURVEYING, LLC. CITY OF MIAMI BEACH 120651 1421 OLGLETHORPE ROAD WEST PALM BEACH 12086C0319 L 09/11/2009 MIAMI-DADE COUNTY Florida 33405 AE 8 FT. 03/02/2023 (561) 508-6272 This information is being collected for the primary purpose of estimating the risk premium rates necessary to provide flood insurance and is not to be used for any construction permitting purposes. Latitude/Longitude in A5 derived from Google Maps. N/A Photo Taken 03/01/2023 "Side View" ☐ Check here if attachments.					

BUILDING PHOTOGRAPHS

See Instructions for Item A6.

OMB No. 1660-0008

Expiration Date: November 30, 2022

ELEVATION CERTIFICATE

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 235 WASHINGTON AVENUE			Policy Number:
City MIAMI BEACH	State Florida	ZIP Code 33139	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.

TAX PARCEL NUMBER



22

Photo One Caption Photo Taken 03/01/2023 "Side View"

Florida N/A

CLYDE MCNEA

SURVEYOR

NEXGEN SURV

CITY OF MIAM

1421 OLGLETH

WEST PALM BEACH
12086C0319



Florida

This information
and is not to be
Latitude/Longitu

the flood insurance

x

Photo Two Caption Photo Taken 03/01/2023 "Side View"

ELEVATION CERTIFICATE

BUILDING PHOTOGRAPHS

Continuation Page

OMB No. 1660-0008

Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 235 WASHINGTON AVENUE			Policy Number:
City MIAMI BEACH	State Florida	ZIP Code 33139	Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken, "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.

MIAMI-DADE COUNTY TAX PARCEL NUMBER 024203003107 25.77182 8		929 × × SPECIAL 8 1 × × × N A × × N A × N A × × 6 1 × 6 2 × N A × 22
--	---	---

Photo One Caption Photo Taken 08/01/2023 "Side View"

×

Florida

N/A

CLYDE MCNEAL SURVEYOR NEXGEN SURVEYING, LLC. CITY OF MIAMI BEACH 120651 1421 OLGLETHORPE ROAD WEST PALM BEACH 12086C0319 L 09/11/2023 × This information is being collected for the purpose of determining flood insurance rates and is not to be used for any construction purposes. Latitude/Longitude in A5 derived from Google Earth N/A		Florida 8 FT. 08-6272 rates necessary to provide flood insurance ×
--	--	--

Photo Two Caption Photo Taken 08/01/2023 "Side View"