

**REPORT OF SUBSURFACE SOIL EXPLORATION
GEOTECHNICAL EVALUATION AND RECOMMENDATIONS**

**VILLAGE AT ATLANTIC SHORES
801 NORTH FEDERAL HIGHWAY
HALLANDALE BEACH, FLORIDA**

DECEMBER 2015



Prepared for:

**ATLANTIC VILLAGE 1, LLC
701 WEST HALLANDALE BEACH BOULEVARD, SUITE 109
HALLANDALE BEACH, FLORIDA 33009**

**NELCO TESTING AND ENGINEERING SERVICES, INC.
13370 SW 131st Street, Suite 105
Miami, Florida 33186**



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TESTING & ENGINEERING SERVICES, INC.

December 1st, 2015

Atlantic Village 1, LLC
701 West Hallandale Beach Boulevard, Suite 109
Hallandale Beach, Florida 33009

Reference: Report of Subsurface Soil Exploration and Recommendations
Evaluation of Subsurface Conditions
For the Proposed Construction:

Village at Atlantic Shores
801 North Federal Highway
Hallandale Beach, Florida

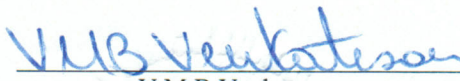
NTES Project Number: B-151211

Dear Sirs,

Following please find the report of subsurface soil explorations and geotechnical evaluation for the above referenced property. Test Borings and soil sampling took place on November 19th, 2015 using procedures in general accordance with ASTM D-1586, the Standard Penetration Test. This report presents our findings, data, and recommendations.

We appreciate this opportunity to assist you in this project. If you have any questions or comments, please call us at (305) 259-9779.

Respectfully Submitted,
NELCO Testing and Engineering Services, Inc.


V.M.B Venkatesan
Professional Engineer No. 63107
State of Florida
12/2/15

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Subsurface Soil Exploration and Recommendations

For

**Village at Atlantic Shores
801 North Federal Highway
Hallandale Beach, Florida**

INTRODUCTION

The purpose of this sub-surface exploration was to obtain data in order to provide an evaluation of the sub-surface conditions and recommendations for foundation design for support of the proposed construction.

PROJECT INFORMATION

Site plans and construction information was provided by Mr. Elias Benaim of Atlantic Village 1, LLC.

At the time of testing, the subject property was observed to be vacant. Proposed construction consists of two (2) new office/retail/restaurant buildings.

SUB-SURFACE CONDITIONS

Sub-surface exploration consisted of five (5) Standard Penetration Test Borings conducted conforming to the guidelines as set forth in ASTM D-1586.

Testing was performed November 19th, 2015. A review of the Test Boring Reports generally indicates that the site consists of various layers of sand, sand with gravel and sand with shells throughout the maximum explored depth of twenty (20) feet below existing grade.

Groundwater at the time of testing was encountered between approximate depths of 4.0 and 5.5 feet below existing grade.

Please refer to the enclosed appendices for location, classification, and stratification information.

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FOUNDATION RECOMMENDATIONS

1. Remove any surface vegetation, and all organic material within building areas plus five (5) feet outside the building footprint. The area under footings, foundations, and concrete slabs on grade shall have all vegetation, stumps, roots, and foreign materials removed prior to placement of fill.
2. Compact the cleared area to a minimum compaction of 95 percent of the dry soil density as determined by the Modified Proctor Test – ASTM D-1557.
3. If any fill material is necessary, fill and compact the cleared areas in lifts not greater than 12 inches of compacted thickness to elevate to the required grade. Fill material for areas in support of footings is to be a mixture of limerock and sand, free of vegetation, organic material, construction debris, and large rocks. Fill material for slab on grade areas may be clean sand, filled and compacted in lifts not greater than 12 inches of loose material. The maximum size of fill material (rocks) within 12 inches below the floor slab shall be no more than 3 inches in diameter.
4. All fill material shall be inorganic containing no more than 5% by weight organic material. Silt-size fine particulates (material passing the No. 200 Sieve) in fill material shall be limited to less than 10% by weight.
5. Compact each lift of fill material and excavated footings to a minimum compaction of 95 percent of the dry soil density as determined by the Modified Proctor Test – ASTM D-1557 prior to placement of any additional fill required.
Prior to compaction, the moisture content of each lift of fill material shall be adjusted to within plus/minus 2 percent of the optimum moisture as determined by the Modified Proctor Test – ASTM D-1557.
6. Compaction of building site shall be verified by means of one Field Density Test for each 2500 square feet or fraction thereof for each lift of compacted soil for building pad or slab area. One Field Density Test will also be required for every 50 linear feet of excavated spread footings, and every isolated footing excavation. Field density tests shall be performed as per ASTM D-2922.
7. All Geotechnical work must be performed under the supervision of our geotechnical engineer or one of his representatives, in order to verify compliance with our specifications.

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SOIL BEARING CAPACITY FOR FOUNDATIONS

Our observations, exploration, and evaluation, supplemented by a review of sub-soil profile developed from the soil engineering Standard Penetration Test, indicate that the soils found, after improvements as specified, will be suitable for supporting foundations proportioned for a maximum allowable bearing stress of 2000 pounds per square foot, based on total load.

ANTICIPATED SETTLEMENT

Provided that foundations and soils (existing and fill material), are engineered and constructed in accordance with our recommendations and specifications the maximum total foundation settlement is expected to be less than 1 inch. Differential settlement between adjacent foundations is expected to be ½ of total settlement.

SOIL EROSION

The possibility exists for erosion to occur on soils providing structural support for any proposed or existing footings/foundations. This should be considered and addressed during the design and construction process for both existing soil and structurally placed fill material in support of any footings/foundations. This geotechnical report does not address this condition, its possibility of occurring, or its prevention.

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REPORT LIMITATIONS

The recommendations submitted are based on the available subsurface information obtained by Nelco Testing and Engineering Services, Inc. (NTES) and design details provided by Atlantic Village 1, LLC for the proposed project. If there are any revisions to the nature, design or location of proposed structures, NTES should be notified immediately to determine if changes in recommendations are required. If NTES is not retained to perform these functions, NTES will not be responsible for the impact of those conditions of the project.

The geotechnical engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been made in accordance with ASTM specifications, and generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed. Evaluations expressed in this report are based on field observations and data collected during exploration. Variations throughout the sub-surface profile may exist between designated boring locations, and in inaccessible areas with existing structures. These may not become evident until construction operations have commenced. Should any variations become evident, NELCO Testing and Engineering Services, Inc. must be notified. A reevaluation of the information and professional opinions expressed in this report may be necessary.

Please note analysis and recommendations mentioned in this report are obtained from the borings performed at the indicated locations on the "Soil Boring Test Location Sketch" included in this report. Local variations outside of the vertical reach of the boring locations may be encountered. Descriptions represent our interpretation of the subsurface data and observations at the specific boring locations, on the date tested.

This geotechnical report has been prepared by NTES for the intended use of Atlantic Village 1, LLC and the specific application to the named project as described. Any third party use of this report [outside of the named client's interest] should be conducted with the expressed written permission of NTES.

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APPENDIX A

- Project Location Map
- Standard Penetration Test Boring Location Sketch

PROJECT SITE



PROJECT LOCATION MAP
VILLAGE AT ATLANTIC SHORES
801 NORTH FEDERAL HIGHWAY
HALLANDALE BEACH, FLORIDA



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Soil Boring Test Location Sketch



VMB Ventilation
12/2/15

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APPENDIX B

- Standard Penetration Test Boring Logs



TEST BORING LOG

Client: Atlantic Village 1, LLC

Date: November 19, 2015

Project: Village at Atlantic Shores

Job Number: B-151211

Project Location: 801 North Federal Highway, Hallandale Beach, Florida

Test Boring Number: 1

Depth	Water Level	Symbol	Strata Name	Description	Number	SAMPLE		N-Value	Standard Penetration Test					
						Blow Count			N-value Blows/ft					
						6"	6"			10	30	50	70	90
0	November 19, 2015		Sand with some gravel	Tan (with some limestone gravel)el)	1	2	10	18						
1			Sand	Tan		8	8							
2			2	9	8	12								
3				4	2									
4			3	2	4	8								
5				4	7									
6			4	3	2	4								
7				2	4									
8			5	3	3	7								
9				4	4									
10			6	6	5	12								
11				7	5									
12			7	4	6	11								
13				5	7									
14			8	4	4	10								
15				6	5									
16			9	3	2	6								
17				4	3									
18			10	8	5	9								
19				4	5									
20			End of Boring											
21														



TEST BORING LOG

Client: Atlantic Village 1, LLC

Date: November 19, 2015

Project: Village at Atlantic Shores

Job Number: B-151211

Project Location: 801 North Federal Highway, Hallandale Beach, Florida

Test Boring Number: 2

Depth	Water Level	Symbol	Strata Name	Description	SAMPLE			Standard Penetration Test	
					Number	Blow Count			N-Value
						6"	6"		
N-value Blows/ft 10 30 50 70 90									
0	November 19, 2015		Sand with some gravel	Brown (with some limestone gravel)	1	1	3	14	
1						11	7		
2			Sand	Tan	2	6	6	10	
3						4	2		
4				Brown	3	2	2	5	
5						3	5		
6					4	5	7	15	
7						8	8		
8					5	3	4	8	
9						4	3		
10					6	2	7	11	
11						4	2		
12					7	4	3	7	
13						4	4		
14					8	5	4	10	
15						6	8		
16					9	5	6	11	
17						5	4		
18					10	6	8	19	
19						11	10		
20			End of Boring						
21									



TEST BORING LOG

Client: Atlantic Village 1, LLC

Date: November 19, 2015

Project: Village at Atlantic Shores

Job Number: B-151211

Project Location: 801 North Federal Highway, Hallandale Beach, Florida

Test Boring Number: 3

Depth	Water Level	Symbol	Strata Name	Description	SAMPLE			Standard Penetration Test									
					Number	Blow Count			N-value								
						6"	6"	N-value		Blows/ft							
									10	30	50	70	90				
0	November 19, 2015		Sand with some gravel	Brown (with some limestone gravel)	1	2	9	18									
1						9	6										
2					2	7	8	13									
3									5	3							
4			Sand	Brown	3	4	4	6									
5									2	3							
6					4			3	4	6							
7								2	7								
8					5			3	4	8							
9								4	2								
10					6			7	6	10							
11								4	2								
12					7			3	2	6							
13								4	6								
14					8			5	9	15							
15								6	5								
16					9			11	8	15							
17								7	6								
18					10			5	11	21							
19								10	9								
20																	
21							End of Boring										



TEST BORING LOG

Client: Atlantic Village 1, LLC



Date: November 19, 2015

Project: Village at Atlantic Shores

Job Number: B-151211

Project Location: 801 North Federal Highway, Hallandale Beach, Florida

Test Boring Number: 4

Depth	Water Level	Symbol	Strata Name	Description	SAMPLE				Standard Penetration Test				
					Number	Blow Count		N-Value	N-value Blows/ft				
						6"	6"		10	30	50	70	90
0	November 19, 2015		Sand with some gravel	Brown (with some limestone gravel)	1	3	5	8					
1			3	3									
2		Sand	Tan	2	4	5	9						
3			Brown		4	4							
4				3	3	3	7						
5					4	3							
6				4	6	5	11						
7					6	6							
8				5	3	2	4						
9					2	3							
10				6	3	4	6						
11					2	3							
12				7	4	6	12						
13					6	7							
14				8	6	9	14						
15					5	4							
16				9	3	10	17						
17					7	6							
18				10	7	9	19						
19					10	9							
20				End of Boring									
21													



TEST BORING LOG

Client: Atlantic Village 1, LLC

Date: November 19, 2015

Project: Village at Atlantic Shores

Job Number: B-151211

Project Location: 801 North Federal Highway, Hallandale Beach, Florida

Test Boring Number: 5

Depth	Water Level	Symbol	Strata Name	Description	SAMPLE			Standard Penetration Test						
					Number	Blow Count		N-Value	N-value					
						6"	6"		Blows/ft					
								10	30	50	70	90		
0	November 19, 2015		Sand	Brown	1		3	3	6					
			Tan			3	4							
2					2		5	5	9					
3							4	4						
4			Sand with some gravel	Tan (with some limestone gravel)	3		7	9	15					
5							6	4						
6					4		7	4	6					
7			Sand	Brown			2	7						
8					5		2	2	4					
9							2	2						
10					6		6	5	9					
11							4	5						
12					7		7	8	16					
13							8	6						
14					8		5	6	13					
15							7	7						
16					9		6	4	6					
17							2	2						
18					10		4	2	6					
19							4	6						
20														
21					End of Boring									