Ardaman & Associates, Inc.
Geotechnical, Environmental and
Materials Consultants

February 28, 2024
File No.: 22-2586

777 Properties Inc.
777 South State Road 7
Margate, Fl. 33068

Attention: Mr. Saul Perez
REZ SE Land LLC

SUBSURFACE EXPLORATION REPORT
PROPOSED DRAINAGE
777 SOUTH STATE ROAD 7
MARGATE, FL. 33068

Ardaman & Associates, Inc. has completed the subsurface exploration of the project site at the subject address above. The work was requested and authorized by Mr. Saul Perez of REZ SE Land LLC. We explored the general subsurface conditions in order to evaluate their suitability for the proposed drainage design. We estimated the coefficient of design permeability of the soils. This report describes our explorations and tests, reports their findings, and summarizes our conclusions.

Our report has been prepared specifically for this project. It is intended for the exclusive use of Mr. Saul Perez, their representatives, and assigns. Our work has used methods and procedures consistent with local foundation engineering practices. No other warranty, expressed or implied, is made. We do not guarantee project performance in any respect, only that our work meets normal standards of professional care.

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Louisiana: Alexandria, Baton Rouge, Monroe, New Orleans, Shreveport
Florida: Bartow, Cocoa, Fort Myers, Miami, Orlando, Port St. Lucie, Sarasota, Tallahassee, Tampa, W. Palm Beach

SITE LOCATION AND SITE DESCRIPTION

The site for the proposed drainage includes two properties located at 777 South State Road 7 (ID numbers 494101310010 and 494101310020) in Margate, Florida (Section 6, Township 49 South and Range 41 East). A site vicinity map provided by Google Earth Pro 2024 was used as our Figure 1. The site is currently a grassy area, with a wooded portion to the west part of the property.

FIELD EXPLORATION PROGRAM

Field Permeability Test

In order to estimate the hydraulic conductivity of the upper soils, three (3) constant head exfiltration tests were performed at a depth of 10 feet below the ground surface at the locations shown in our Boring Location Plan. The tests were performed in accordance with methods described in the South Florida Water Management District (SFWMD) Permit Information Manual, Volume IV.

Descriptions of the soils observed in the exfiltration test boreholes and the test results are presented in the Appendix. In brief, the exfiltration tests yielded hydraulic conductivity values between 3.55×10^{-4} cfs/ft^2-ft head and 4.79×10^{-4} cfs/ft^2-ft head.

GROUNDWATER CONDITIONS

Our drillers observed groundwater in the boreholes at depths of about 3.5 feet below the ground surface, as noted on the percolation logs. Fluctuations in the groundwater level on this site should be anticipated throughout the year due to seasonal variations in rainfall, drainage, and land surface elevation, relief point's distance. Groundwater elevation at this site may be expected after a period of heavy rains.

CLOSURE

The analysis submitted herein is based upon the data obtained from the percolation boring presented in the Appendix. This report does not reflect any variations which may occur adjacent to or between the boring. The nature and extent of the variations between the borings may not become evident until during construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations presented in this report after performing on-site observations during the construction period and noting the characteristics of the variations.

In the event any changes occur in the design, nature, or location of the proposed facility, we should review the applicability of the conclusions and recommendations in this report. We are pleased to be of assistance to you on this phase of your project. When we may be of further service to you or should you have any questions, please contact us.

Very truly yours,
ARDAMAN & ASSOCIATES, INC.
FL Certificate No 0005950

Gabriela Gonzalez, E.I.
Staff Engineer

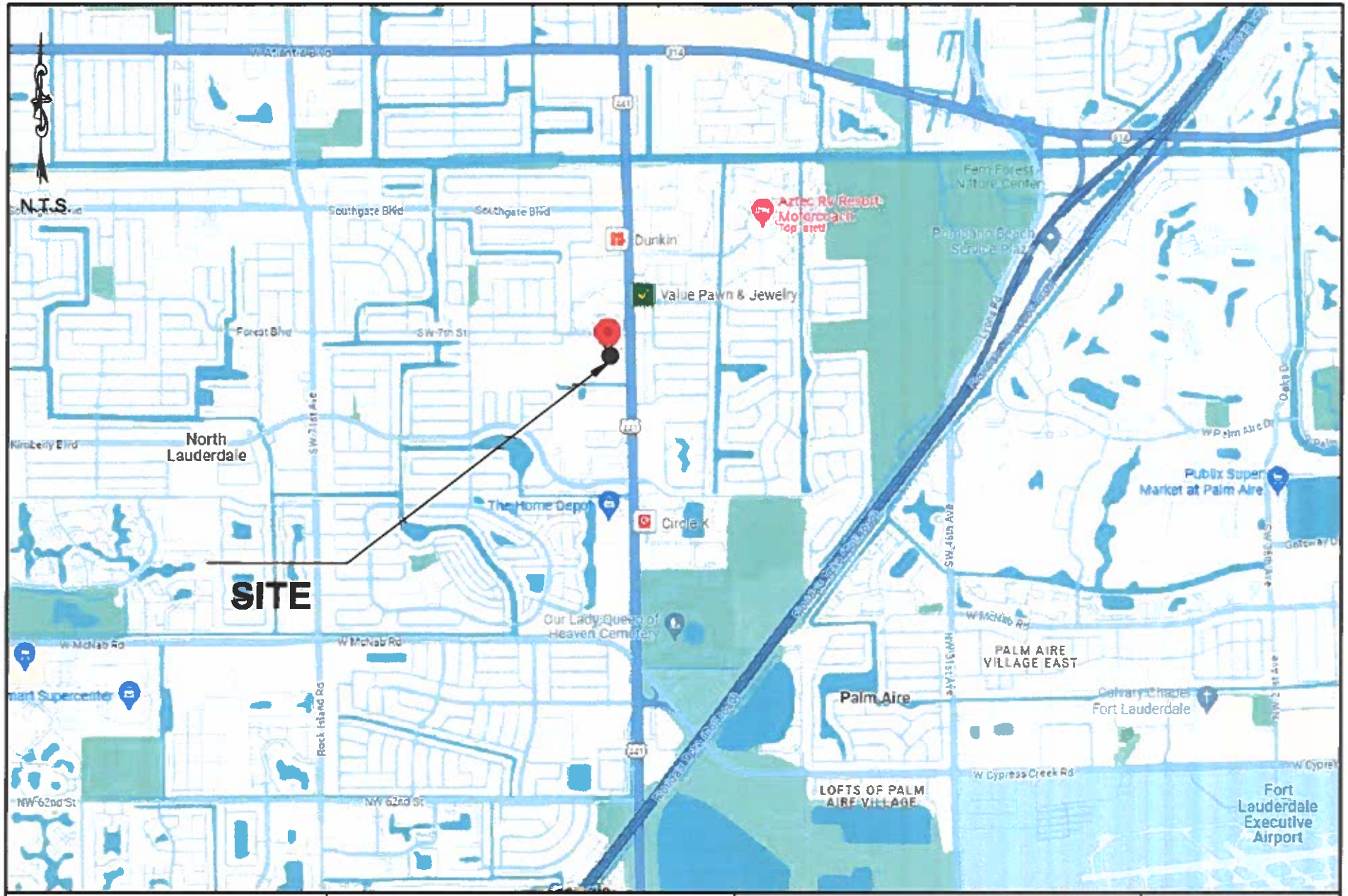
Evelio Horta, M.S.C.E., P.E.
Project Engineer
FL Reg. No. 82209

Evelio Horta, Ph.D., P.E, G.E.
Principal Engineer
FL Reg. No. 46625

This item has been digitally signed and sealed by Evelio Horta, PhD P.E., G.E on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Ardaman & Associates, Inc.

SITE PLAN
AND
BORING LOGS



Ardaman & Associates, Inc. Geotechnical, Environmental and Materials Consultants	SUBSURFACE EXPLORATION REPORT PROPOSED DRAINAGE 777 SOUTH STATE ROAD 7, MARGATE BROWARD COUNTY, FLORIDA	SITE VICINITY MAP Figure No 1.	File No.: 22-2586 Prepared By: GG Date: 02/23/24

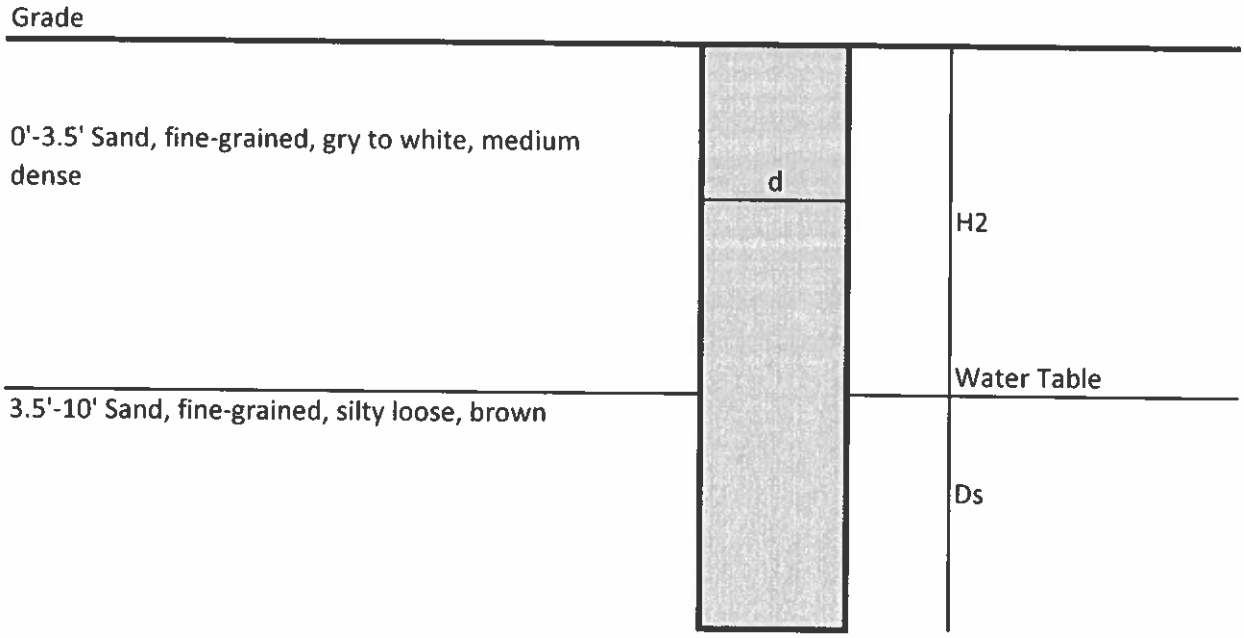
Ardaman & Associates, Inc. Geotechnical, Environmental and Materials Consultants	SUBSURFACE EXPLORATION REPORT PROPOSED DRAINAGE 777 SOUTH STATE ROAD 7, MARGATE BROWARD COUNTY, FLORIDA	BORING LOCATION PLAN Figure No 2.	File No: 22-2586 Prepared By: GG Date: 02/23/2024

SFWMD
CONSTANT HEAD
PERCOLATION TESTS

PROPOSED DRAINAGE
777 South State Road 7
Margate, Florida
CONSTANT HEAD PERCOLATION TEST
SFWMD Usual Open Hole Test
Test 1, Location EX-1

22-Feb-24
File No. 22-2586

Location: See Plan



K= Hydraulic Conductivity (cfs/ft^2-ft head)	3.55E-04
Q= Stabilized Flow Rate (cfs)	1.67E-02
d= Diameter of Test Hole (ft)	0.5
H2= Depth of Water Table (ft)	3.60
Ds= Saturated Hole Depth (ft)	6.4
H= Test Hole Depth (ft)	10

Evelio Horta, Jr., M.S.C.E., P.E.
Project Engineer
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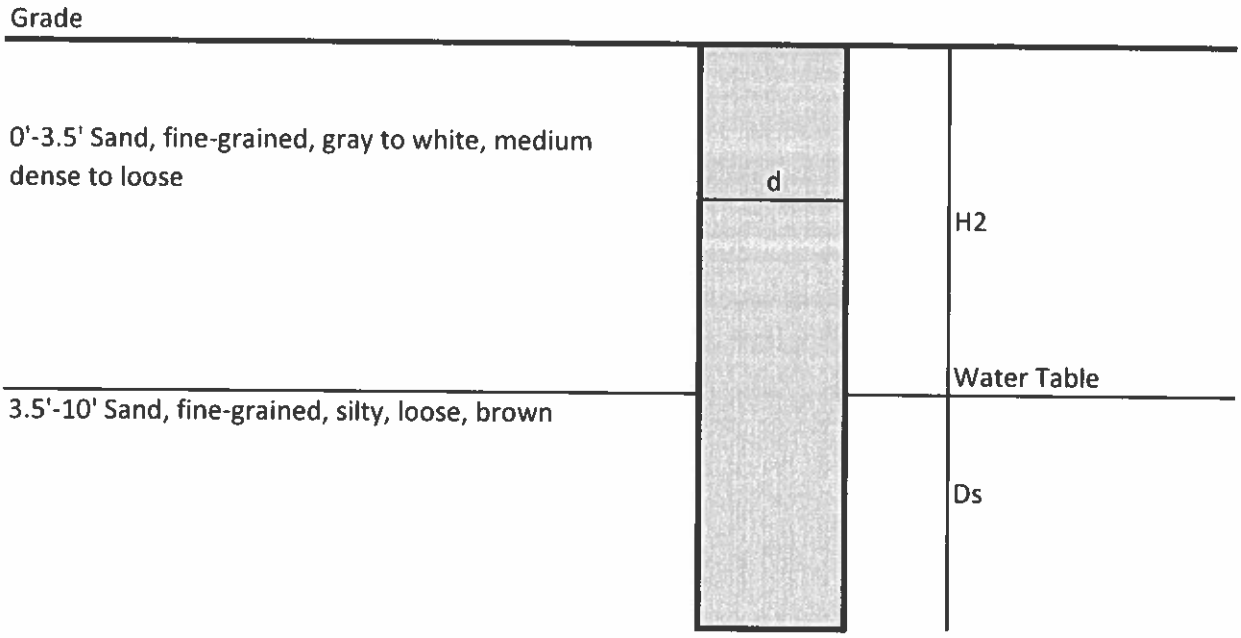
PROPOSED DRAINAGE
777 South State Road 7
Margate, Florida
CONSTANT HEAD PERCOLATION TEST
SFWMD Usual Open Hole Test
Test 2, Location EX-2

22-Feb-24
File No. 22-2586

Location: See Plan



K= Hydraulic Conductivity (cfs/ft^2-ft head)	4.59E-04
Q= Stabilized Flow Rate (cfs)	2.16E-02
d= Diameter of Test Hole (ft)	0.5
H2= Depth of Water Table (ft)	3.60
Ds= Saturated Hole Depth (ft)	6.4
H= Test Hole Depth (ft)	10

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PROPOSED DRAINAGE
777 South State Road 7
Margate, Florida
CONSTANT HEAD PERCOLATION TEST
SFWMD Usual Open Hole Test
Test 3, Location EX-3

22-Feb-24
File No. 22-2586

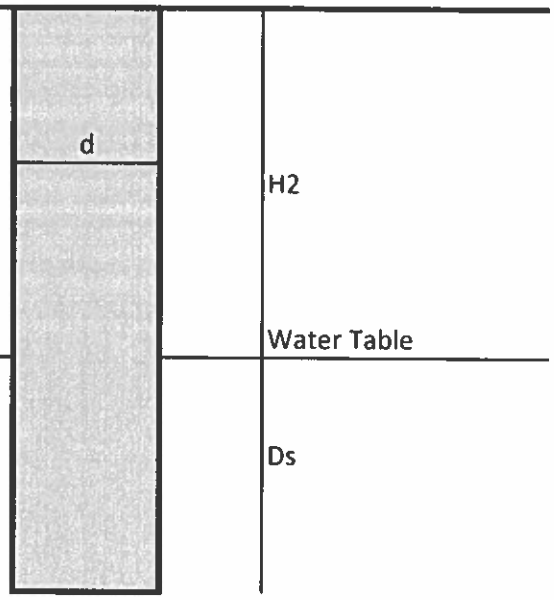
Location: See Plan

Grade

0'-0.5' Sand, black and topsoil, silty organics

0.5'-3.5' Sand, fine-grained, gray to white, medium dense to loose

3.5'-10' Sand, fine-grained, silty, loose, brown



K= Hydraulic Conductivity (cfs/ft^2-ft head)	4.79E-04
Q= Stabilized Flow Rate (cfs)	2.21E-02
d= Diameter of Test Hole (ft)	0.5
H2= Depth of Water Table (ft)	3.50
Ds= Saturated Hole Depth (ft)	6.5
H= Test Hole Depth (ft)	10

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