

Date: January 26, 2021

RE: FPL Pathway Lighting, EN1901 – Request for information

Thank you for your interest in the Village's project. Highlighted responses to requests for information are listed below. Please note the list is a compilation of questions submitted from multiple Contractors and Suppliers.

Previous RFI responses and addenda can be viewed at: <http://www.royalpalmbeach.com/rfps>

Sincerely,

Adamo DiSisto  
Project Engineer  
Office: (561) 790-5163  
Village of Royal Palm Beach  
Engineering Department  
1050 Royal Palm Beach Boulevard  
Royal Palm Beach, FL 33411  
[adisisto@royalpalmbeach.com](mailto:adisisto@royalpalmbeach.com)

**From:** Esperanza Gutierrez <[egutierrez@solarmaxtech.com](mailto:egutierrez@solarmaxtech.com)>

**Sent:** Tuesday, December 29, 2020 1:47 PM

**To:** Vickie Day <[vday@RoyalPalmBeach.com](mailto:vday@RoyalPalmBeach.com)>

**Cc:** Lily Chen <[lchen@solarmaxtech.com](mailto:lchen@solarmaxtech.com)>

**Subject:** FW: FPL Pathway Lighting - EN1901 Inquiry

1. Does the scope include installing LED light fixtures with the poles?

Yes

2. Is the contractor supplying the LED fixtures?

Yes

3. Can you share the LED fixture specs and if alternatives are allowed?

Please see RFI Response 2, sent 1/8/2021.

4. Is there a planholder's list publicly available?

Response: Yes, the Clerks Office handles this list, please email [Clerks\\_Office@RoyalPalmBeach.com](mailto:Clerks_Office@RoyalPalmBeach.com)

**From:** Chester Sokowski <chester.sokowski@ambroseindustries.net>

**Sent:** Tuesday, December 22, 2020 4:59 PM

**To:** Diane DiSanto <Ddisanto@RoyalPalmBeach.com>

**Subject:** Fpl Pathway Lightingway Lighting - 01/27/2021

After reading the RFP referenced in the subject field, we wish to submit the following questions.

1. Do you anticipate extending the bid due date?

No, not at this time. The Bid Opening date is still currently scheduled for 3:30pm on Wednesday January 27, 2021.

2. What additional details are you willing to provide, if any, beyond what is stated in bid documents concerning how you will identify the winning bid?

This is implied by virtue of requesting contractor references as part of the bid documents, but contractor references will be checked before the decision on the winning bid is selected to ensure

3. Was this bid posted to the nationwide free bid notification website at [www.mygovwatch.com/free](http://www.mygovwatch.com/free)?

No

4. Other than your own website, where was this bid posted?

The bid will be posted in the Palm Beach Post newspaper on 12/24/2020.

**From:** Dan Lewis <DLewis@ferreiraconstruction.com>

**Sent:** Monday, January 4, 2021 5:09 PM

**To:** Adamo DiSisto <adisisto@RoyalPalmBeach.com>

**Cc:** Robert Higginbotham <RHigginbotham@ferreiraconstruction.com>; Ed Shea <EShea@ferreiraconstruction.com>

**Subject:** FPL Pathway Lighting - Submitted Questions - Ferreira Construction

1. Please verify that all of the material is to be furnished and installed by the contractor, and that no materials are being provided by the Village or Royal Palm Beach, FP&L, or any other entity.

No material shall be provided by any entity. It is the contractor's responsibility to furnish and install all products required for the project.

2. Can you provide the specified light pole manufacturer's name, as I am unable to find it in the plans and/or the contract documents?

As a requirement of the federal grant funding this project, The Village is not authorized to specify specific products for this project. A set of cut sheets with all branding information removed will be issued with this response to use as an

example. Please see the top of the attachment for additional language on this matter.

3. Can the light poles that are no required to be on "spread footer" foundations, be a direct buried pole (with wind load calculations being provided), and eliminate the precast foundation?

No. The spread footers are required because of conflicts with existing utilities. Precast foundations will be used for all locations not specified as needing a spread footer.

4. Can you provide the specified luminaire manufacturer's name, as I am unable to find it in the plans and/or the contract documents?

Please see the response to 2 above.

5. Are the light poles and the luminaires considered to be "proprietary products"? If so, please issue the required "Proprietary Product Certification Form", for each proprietary product, as per FDOT Standard Specifications, so that they can be made part of the Contract Bid Documents.

Please see the response to 2 above.

6. Will the Village of Royal Palm Beach consider and alternate light pole and/or luminaire? If so, please provide the specific criteria requirements?

Please see the response to 2 above.

7. On Sheet E-9, Electrical Details, the Load Center details show a lockable door with a "Meter Section". This is not a typical "FDOT" style Load Center. Is this configuration required, or can a Nema 4X be provided on a stub pole, in the same vicinity as the ground mounted Load Center?

Please provide the electrical panels as per details on the drawings.

8. On Sheet E-9, Electrical Details, there is a Note that states: "ALL INSTALLATIONS SHALL BE SUITABLE FOR WIND LOAD IN ACCORDANC WITH THE FLORIDA BUILDING CODE. THE CONTRACTOR SHALL INCLUDE WITH THE SHOP DRAWING SUBMITTAL, A WIND LOAD CALCULATION SEALED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF FLORIDA SHOWING THAT THE PROPOSED INSTALLATION WILL MEET THE WIND LOADING REQUIREMENT." FDOT Load Centers do not require Wind Load Calculations. Sheet # 01 of 09 of the Bid Plans, states that the Governing Standards and Specifications are FDOT Standard Plans Dated 2021 and Standard Specifications for Road and Bridge Construction Dated July 2021, as amended by Contract Documents. Please verify that the Load Center(s) are NOT required to have wind load calculations provided.

Per 7 above, FDOT Load Centers are not specified for this project, so the exemption for providing wind load calculations does not apply. Electrical installation shall meet NEC, FDOT, and the Florida Building Code.

**From:** Dan Lewis <DLewis@ferreiraconstruction.com>  
**Sent:** Monday, January 4, 2021 5:09 PM  
**To:** Adamo DiSisto <adisisto@RoyalPalmBeach.com>  
**Cc:** Robert Higginbotham <RHigginbotham@ferreiraconstruction.com>; Ed Shea <EShea@ferreiraconstruction.com>  
**Subject:** FPL Pathway Lighting - Submitted Questions - Ferreira Construction

1. Please provide riser diagram for meter/panel install. One line diagram

Riser diagram is provided on Sheet E-8 of Bid Documents.

2. Sheet E7 and E8 refer to note 1, which states- "provide and install 240/480, 1 phase, 3w as per detail E9" Sheet E9 has no reference to voltage, meter/operating voltage would have to be the same ie; 240 volt or 480 volt. Is the correct voltage 1 phase 480 (this refers to a wye configuration, utilizing one phase and a neutral which is 277 volts between the two conductors) or is this a Delta connection, meaning the voltage between the conductors will be 480 volts and fixtures will have same?

Electrical service shall be a 240/480 volt, single phase service. The service is a standard FDOT service voltage of 240 volt phase to ground and 480 volt phase to phase. Contractor shall coordinate with FPL for the proposed service.

3. Sheet E9 shows a 4X enclosure, with meter, contactor, panel, surge and photocell. Drawing shows a compartment for the utility company wiring as well, is the enclosure a manufactured unit? Please include clarity and/or part numbers for this unit.

The panel can be manufactured by Milbanks (816-510-6314), CC Control Corp (561-293-3975) or Tesco Controls (800-948-3726) or anyone else who is a UL shop as per note 4 on sheet E-8.

4. Please include AIC (Arc Interrupting current) rating requirement for the Panelboard schedules

The AIC of the service equipment shall be min. 22,000 as per schedule on Sheet E-8. Contractor shall verify with FPL for proposed fault current and adjust accordingly.

**From:** Celi of LLCFG Construction <celia@pavement.net>  
**Sent:** Wednesday, January 13, 2021 7:47 AM  
**To:** Adamo DiSisto <adisisto@RoyalPalmBeach.com>  
**Subject:** FPL Pathway Lighting – Licensure RFI

1. Please clarify the licensure requirements.

The contractor who will be performing the electrical work must have an Electrical Contractor's License. On page FP-55 of the Contract Documents, the Federal Provisions state that the prime contractor must self-perform at least 30% of the work, and "The contract amount upon which

the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.” The cost of materials is expected to be more than 30% of project costs, meaning that a General Contractor should be able to bid with a Licensed Electrical Subcontractor.

**From:** Dan Lewis <DLewis@ferreiraconstruction.com>

**Sent:** Wednesday, January 20, 2021 12:51 PM

**To:** Adamo DiSisto <adisisto@RoyalPalmBeach.com>; Vickie Day <vday@RoyalPalmBeach.com>

**Subject:** FPL Pathway Lighting - Submitted Questions (Additional) - Ferreira Construction

Please provide answers to the following questions:

1. The Lighting Criteria has still not been issued, as was previously requested below, in Question #6, below. Please provide the specific lighting design criteria for this project.

Please see Addendum 1 issued on January 20, 2021

2. On Sheet S-1, the Brass Warning Marker Detail – Can this marker be Bronze? Is this marker required to be “domed”? I have not been able to find a manufacturer that is willing to “factory” stamp any of the brass markers. The detail that you’ve provided specifically matches the manufacturer of the bronze domed markers that can be factory stamped, so all markers can be identical. If bronze is not allowed, please provide the vendor(s) available for the brass product.

Addendum 2 will include an updated sheet S-1, which will allow for brass/bronze and flat/domed.

3. On Sheet S-1, the Typical Precast Foundation Elevation shown, calls for a 24” x 9’ precast foundation. Can this foundation be shorter, if the contractor provided signed & sealed drawings and wind load calculations?

Addendum 2 will include an updated sheet S-1, which will remove the precast pile foundation detail. The contractor shall be responsible for obtaining a design for the precast pile foundations, and shall provide signed & sealed drawings and wind load calculations.

4. The plan sheets, plan details, plan typicals, nor the Light Pole Detail, do not show any breakaway couplings for any of the light poles. Sheet S-1, Spread Footing Section, states “Transformer Base, Post & Anchor Bolts by Light Pole Manufacturer”. Transformer bases for light poles are designed to break away, but there are no transformer bases with these light poles. Will break away couplings be required for all of these light poles?

The poles for this project shall be concrete, which do not have transformer bases or breakaway couplings, so neither are required. Addendum 2 will include an updated sheet S-1, which will remove the mention of transformer bases.

**From:** Altima Lighting <altimalighting@bellsouth.net>

**Sent:** Thursday, January 21, 2021 10:39 AM

**To:** Vickie Day <vday@RoyalPalmBeach.com>

**Subject:** FPL Pathway Lighting

1. My colleagues were wondering if there is a FIN number since its government funded (federal ID number) associated with this job?

I have been advised by the Village Finance Department that our FIN number is not to be distributed to the public.

2. Are all parts supposed to be made in USA?

Please see page BA-40 of the Contract Documents for the Buy America Certification requirements. This applies to iron and steel, not all project components.

**From:** Altima Lighting <altimalighting@bellsouth.net>

**Sent:** Thursday, January 21, 2021 8:03 PM

**To:** Vickie Day <vday@RoyalPalmBeach.com>

**Cc:** mgarrison@altimalighting.net; 'Humberto Castillo' <humberto@altimalighting.net>; 'Michael Benz' <michael@electrictricks.io>; Adamo DiSisto <adisisto@RoyalPalmBeach.com>

**Subject:** Re: FPL Pathway Lighting

1. Is there any geotechnical or boring test information? Auguring with sand is impossible, as it will cave in.

The excerpt from a Geotechnical report created for an adjacent project is attached to this RFI Response and will be added to the Contract Documents in the next Addendum. 25'-tall direct burial light poles in the project area were installed via augur in the past with no issues.

2. Do we have to repair the sidewalks damaged from each pole setting?

Any existing facilities damaged by contractor activities shall be replaced at the contractor's expense. Anticipated damages should be included in the relevant line item during initial bidding.

## **EXHIBIT A**

Excerpt from FPL Pathway Dry  
Detention Ponds Geotechnical Report

The following is a relevant selection of a Geotechnical report performed for a project that is adjacent to the northern half of the FPL Pathway Lighting Project, provided here to give the contractor information on the existing soil conditions. The contractor is still responsible for performing her/his own survey and analysis of existing conditions, and adjusting means and methods of construction accordingly.

### **SITE LOCATION AND EXPLORATION PLANS**

#### **Contents:**

Site Location Plan  
Exploration Plan (3 pages)  
Dry Detention Ponds Location Plan

Note: All attachments are one page unless noted above.

**SITE LOCATION**

FPL Pathway Dry Detention Ponds ■ Village of Royal Palm Beach, FL  
January 21, 2020 ■ Terracon Project No. HD195036

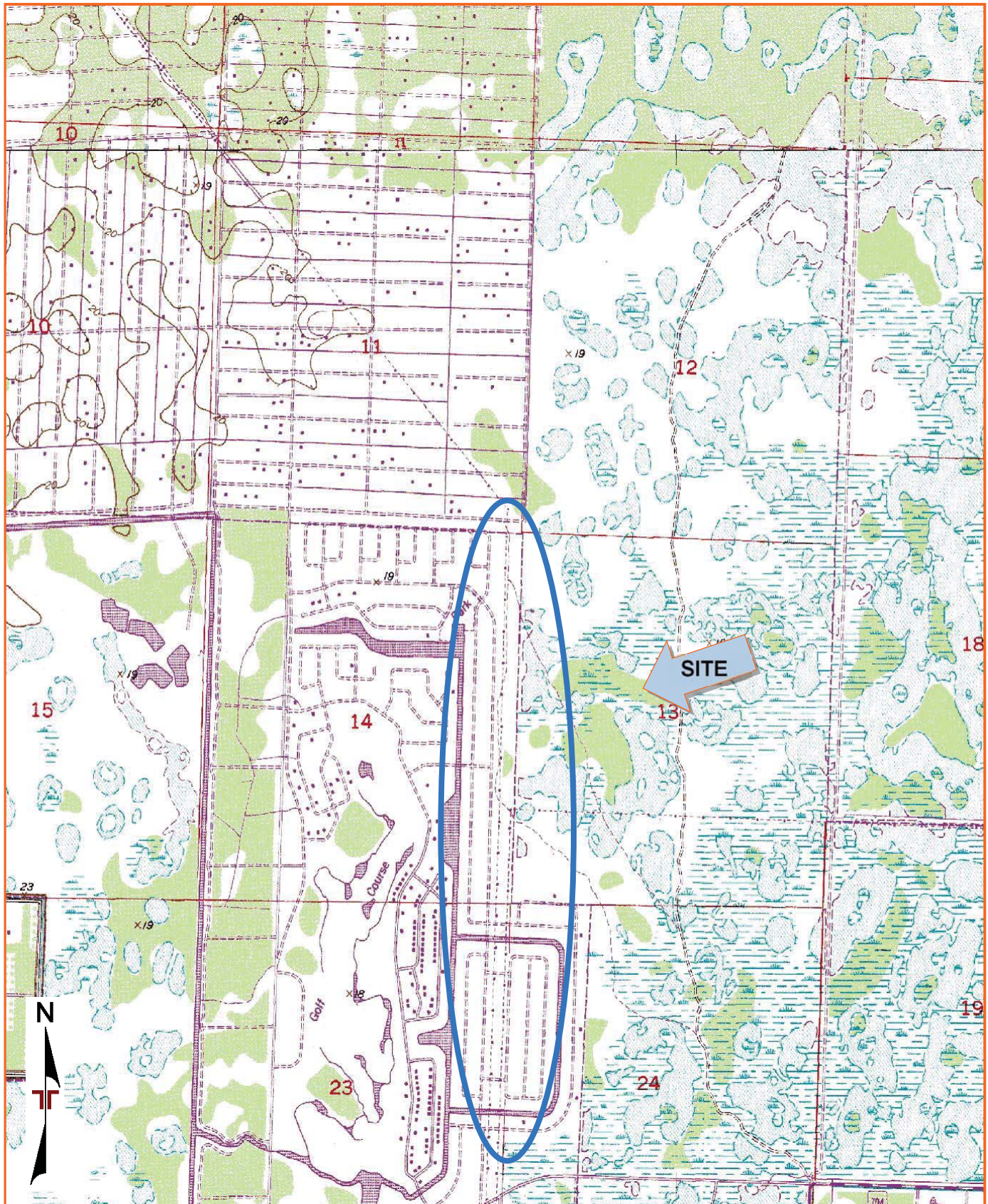


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY  
QUADRANGLES INCLUDE: DELTA, FL (1/1/1983) and PALM BEACH FARMS, FL (1/1/1983).



**EXPLORATION PLAN 1**

FPL Pathway Dry Detention Ponds ■ Village of Royal Palm Beach, FL  
January 21, 2020 ■ Terracon Project No. HD195036



DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

**EXPLORATION PLAN 2**

FPL Pathway Dry Detention Ponds ■ Village of Royal Palm Beach, FL  
January 21, 2020 ■ Terracon Project No. HD195036

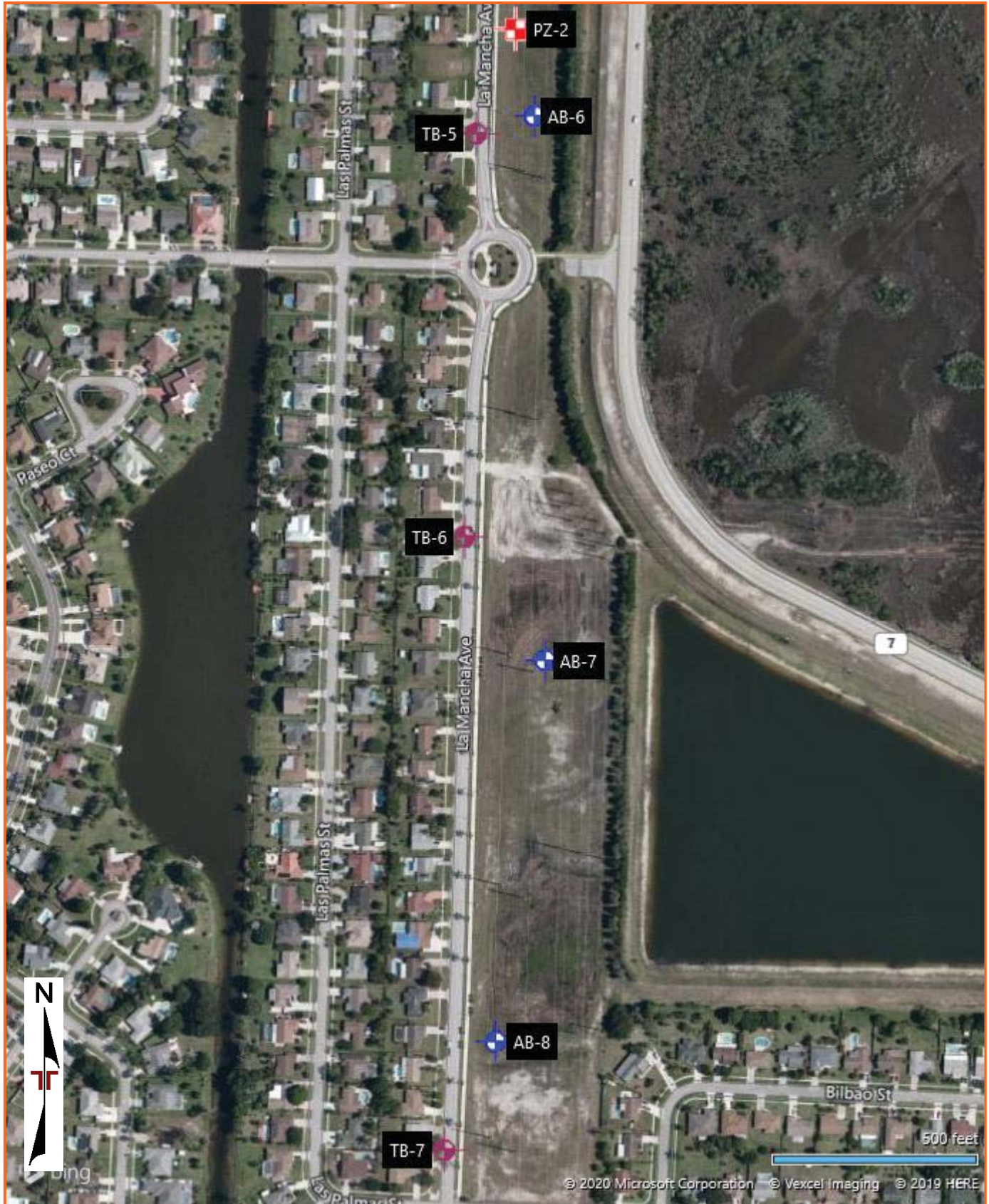


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

### EXPLORATION PLAN 3

FPL Pathway Dry Detention Ponds ■ Village of Royal Palm Beach, FL  
January 21, 2020 ■ Terracon Project No. HD195036



DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

## **EXPLORATION RESULTS**

### **Contents:**

Geomodel (4 pages)

Boring Logs (TB-1 through PZ-2)

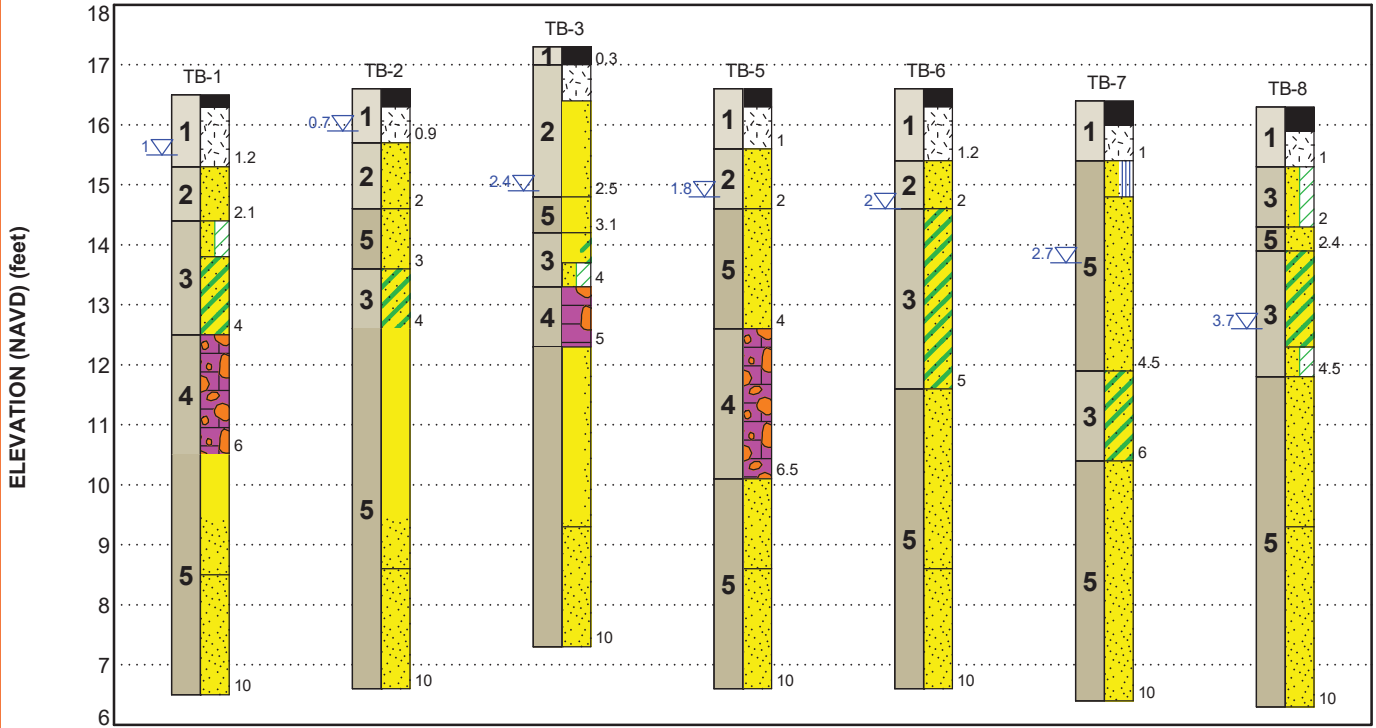
Grain Size Distribution Graphs (2 pages)

Moisture Density Relationship (3 pages)

Note: All attachments are one page unless noted above.

**GEOMODEL**

FPL Pathway Dry Detention Ponds ■ Village of Royal Palm Beach, FL  
 Terracon Project No. HD195036



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

**LEGEND**

Model Layer	Layer Name	General Description
1	<b>PAVEMENT</b>	Asphalt Concrete over Shellrock Base
2	<b>SAND</b>	Gray to brown fine SAND, trace to some gravel, sometimes with trace to some roots in upper few inches, loose to medium dense (SP)
3	<b>CLAYEY SAND TO SAND WITH CLAY</b>	Gray to dark brown fine Clayey Sand to Sand with clay, medium dense (SC, SP-SC)
4	<b>CEMENTED SAND AND SHELL</b>	Gray Cemented Sand and Shell
5	<b>SAND WITH SILT TO SAND</b>	Gray to brown fine Sand with silt to Sand, sometimes with trace to some roots in upper few inches, sometimes with varying amounts of sand to gravel size shell fragments, loose to medium dense (SP-SM, SP)
6	<b>COQUINA LIMESTONE</b>	Gray Coquina Limestone
7	<b>ORGANIC SAND</b>	Dark brown Organic Sand, roots (PT)

- Asphalt
- Base
- Poorly-graded Sand
- Poorly-graded Sand with Clay
- Clayey Sand
- CGS - Las Vegas Local Standard
- Poorly-graded Sand with Silt

**NOTES:**

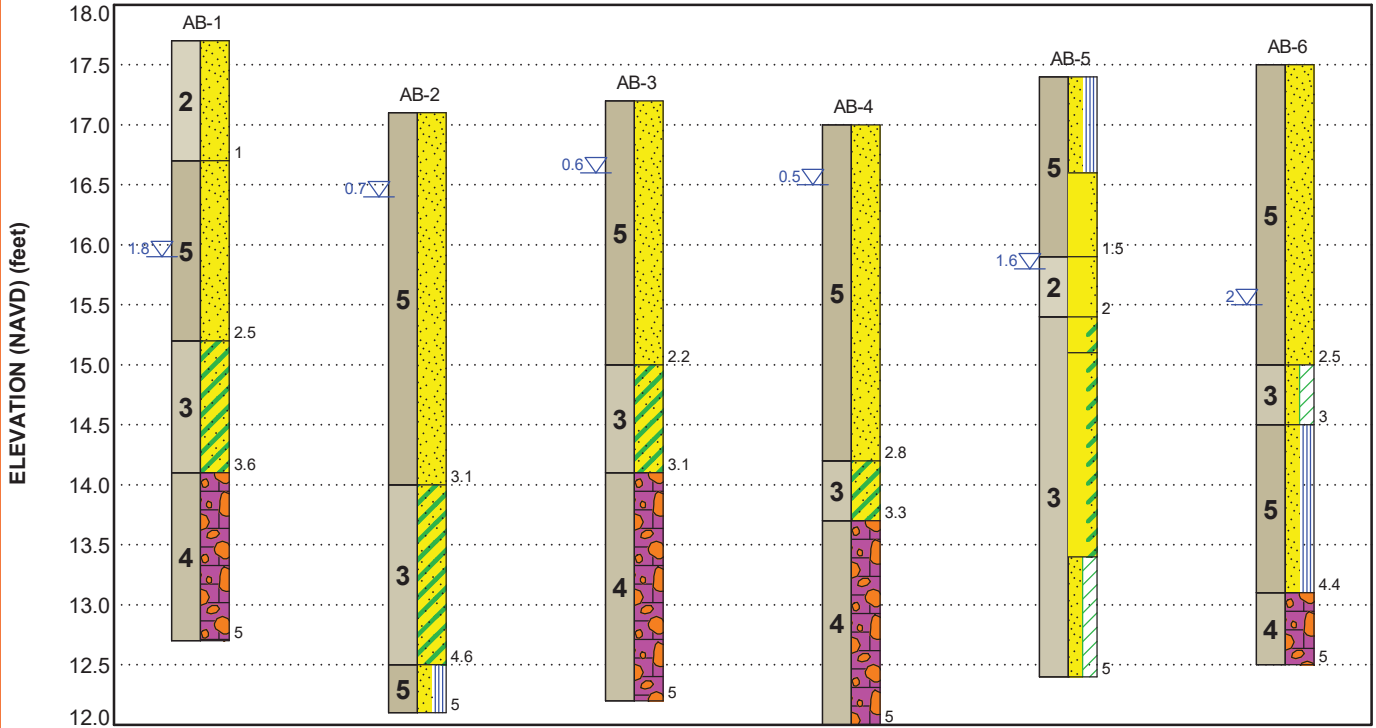
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.

▽ First Water Observation

Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time. Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

**GEOMODEL**

FPL Pathway Dry Detention Ponds ■ Village of Royal Palm Beach, FL  
 Terracon Project No. HD195036



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

**LEGEND**

Model Layer	Layer Name	General Description
1	PAVEMENT	Asphalt Concrete over Shellrock Base
2	SAND	Gray to brown fine SAND, trace to some gravel, sometimes with trace to some roots in upper few inches, loose to medium dense (SP)
3	CLAYEY SAND TO SAND WITH CLAY	Gray to dark brown fine Clayey Sand to Sand with clay, medium dense (SC, SP-SC)
4	CEMENTED SAND AND SHELL	Gray Cemented Sand and Shell
5	SAND WITH SILT TO SAND	Gray to brown fine Sand with silt to Sand, sometimes with trace to some roots in upper few inches, sometimes with varying amounts of sand to gravel size shell fragments, loose to medium dense (SP-SM, SP)
6	COQUINA LIMESTONE	Gray Coquina Limestone
		Dark brown Organic Sand, roots (PT)

- Poorly-graded Sand
- Clayey Sand
- CGS - Las Vegas Local Standard
- Poorly-graded Sand with Silt
- Poorly-graded Sand with Clay

**NOTES:**

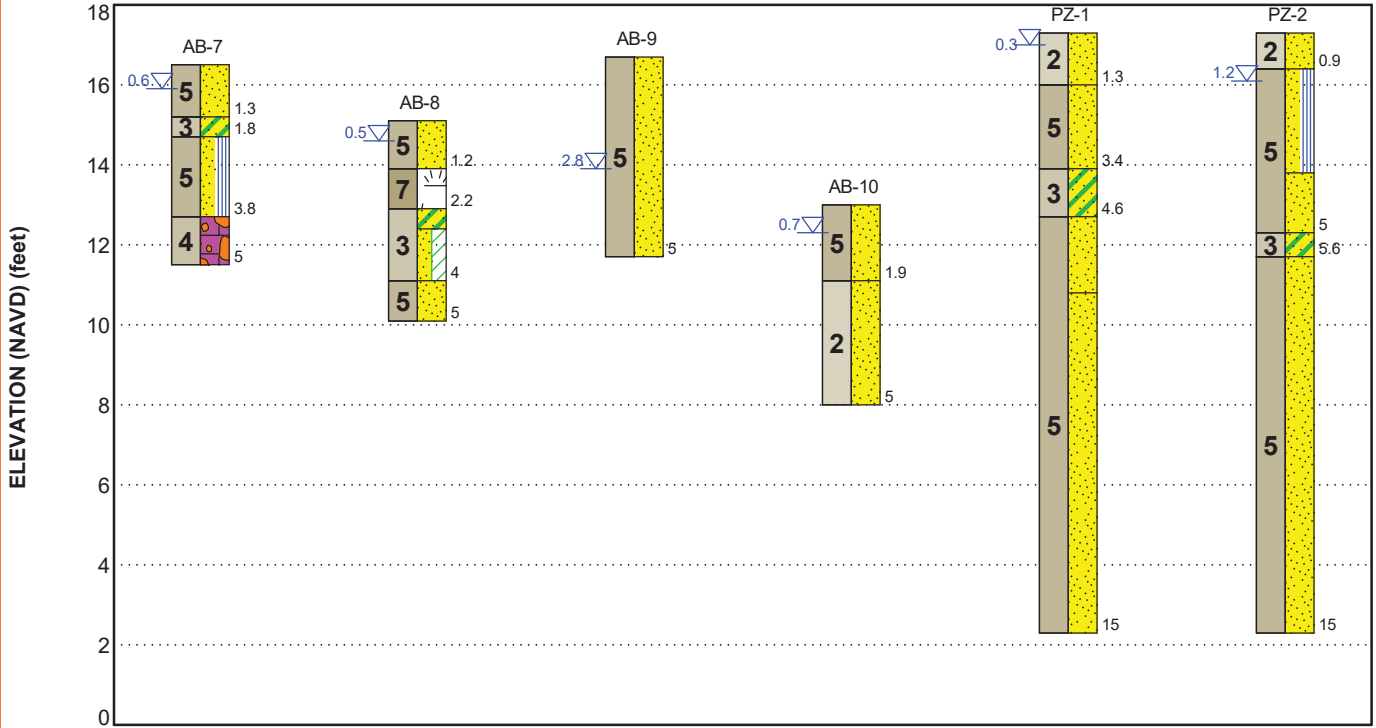
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**GEOMODEL**

FPL Pathway Dry Detention Ponds ■ Village of Royal Palm Beach, FL  
 Terracon Project No. HD195036



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4	CEMENTED SAND AND SHELL	Gray Cemented Sand and Shell
5	SAND WITH SILT TO SAND	Gray to brown fine Sand with silt to Sand, sometimes with trace to some roots in upper few inches, sometimes with varying amounts of sand to gravel size shell fragments, loose to medium dense (SP-SM, SP)
6	COQUINA LIMESTONE	Gray Coquina Limestone
7	ORGANIC SAND	Dark brown Organic Sand, roots (PT)

- Poorly-graded Sand
- Clayey Sand
- Poorly-graded Sand with Silt
- CGS - Las Vegas Local Standard
- Peat
- Poorly-graded Sand with Clay

**NOTES:**

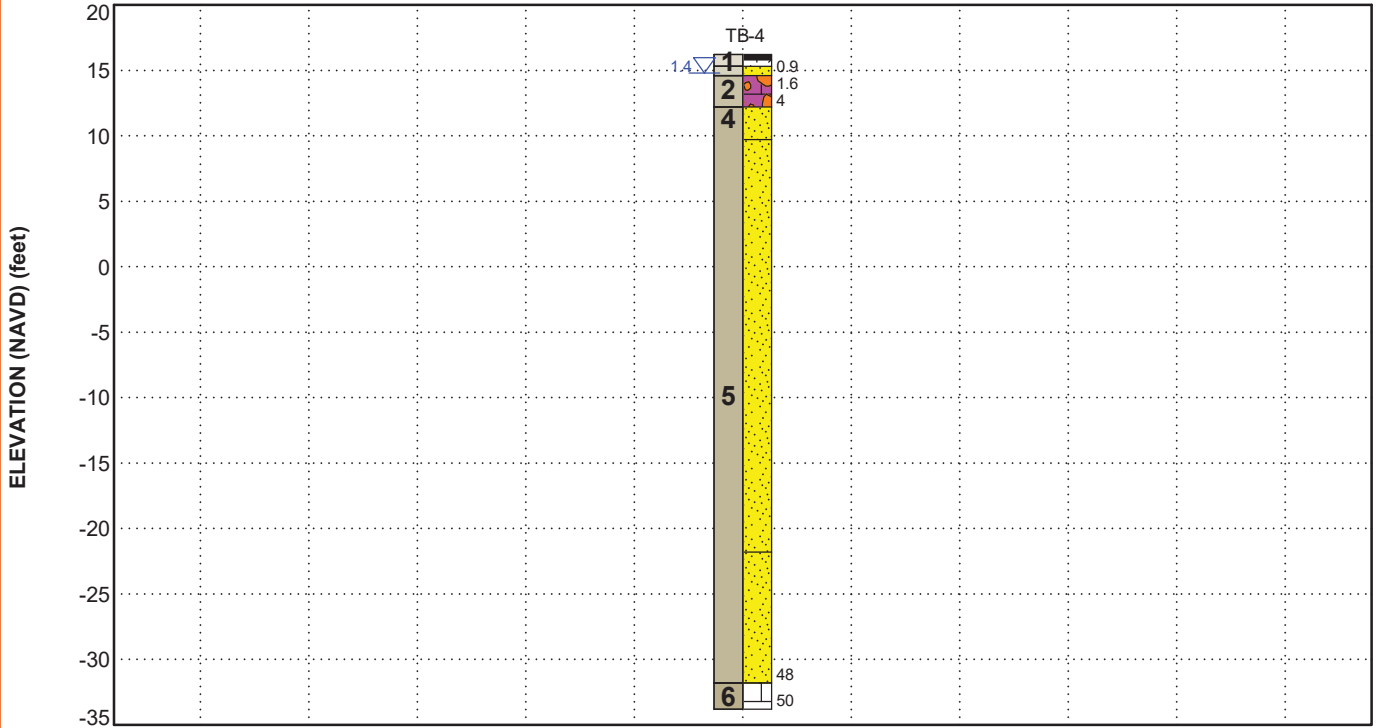
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.

First Water Observation

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**GEOMODEL**

FPL Pathway Dry Detention Ponds ■ Village of Royal Palm Beach, FL  
 Terracon Project No. HD195036



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

**LEGEND**

Model Layer	Layer Name	General Description
1	PAVEMENT	Asphalt Concrete over Shellrock Base
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3	CLAYEY SAND TO SAND WITH CLAY	Gray to dark brown fine Clayey Sand to Sand with clay, medium dense (SC, SP-SC)
4	CEMENTED SAND AND SHELL	Gray Cemented Sand and Shell
5	SAND WITH SILT TO SAND	Gray to brown fine Sand with silt to Sand, sometimes with trace to some roots in upper few inches, sometimes with varying amounts of sand to gravel size shell fragments, loose to medium dense (SP-SM, SP)
6	COQUINA LIMESTONE	Gray Coquina Limestone
7	ORGANIC SAND	Dark brown Organic Sand, roots (PT)

- Asphalt
- Poorly-graded Sand
- Limestone
- Base
- CGS - Las Vegas Local Standard

**NOTES:**

Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.

▽ First Water Observation

Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time. Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.



# BORING LOG NO. TB-1

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL - HD195036 FPL PATHWAY DRY D.G.P.J TERRACON\_DATATEMPLATE.GDT 4/2/20

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7312° Longitude: -80.2173°  Surface Elev.: 16.5 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)		
1		0.2 <b>ASPHALT</b>	16.5	▽	X	14-8-8-7 N=16	30	15		
2		1.2 <b>SHELLROCK BASE</b> , light gray	15.5							
		2.1 <b>SAND (SP)</b> , fine grained, brown, trace gravel	14.5							
3		2.7 <b>SAND WITH CLAY (SP-SC)</b> , fine grained, gray	14			4-4-8-12 N=12				
		4.0 <b>CLAYEY SAND (SC)</b> , fine grained, gray	12.5							
4		6.0 <b>CEMENTED SAND AND SHELL</b> , gray	10.5			7-7-12-10 N=19				
		8.0 <b>SAND (SP)</b> , fine grained, brown, medium dense, some sand to gravel size shell fragments	8.5			3-5-5-6 N=10				
5		10.0 <b>SAND (SP)</b> , fine grained, gray, loose	6.5			3-3-3-5 N=6				
<b>Boring Terminated at 10 Feet</b>			10							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Mud Rotary / SPT Method  
Continuous sampling upper 10 feet  
Samples at 5-foot intervals below 10 feet

**Abandonment Method:**  
Boring backfilled with bentonite chips upon completion.  
Pavement repaired with asphalt cold patch

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

See [Supporting Information](#) for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS
▽ 1 feet during drilling

1225 Omar Rd  
West Palm Beach, FL

Boring Started: 11-01-2019	Boring Completed: 11-01-2019
Drill Rig: CME 45B	Driller: B. Phillips
Project No.: HD195036	

# BORING LOG NO. TB-2

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7305° Longitude: -80.2173°  Surface Elev.: 16.6 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
1	ASPHALT		0.3 16.5	▽				
2	SHELLROCK BASE	light brown, trace gravel	0.9 15.5			15-8-7-9 N=15		
5	SAND (SP)	fine grained, brown	2.0 14.5					
5	SAND (SP)	fine grained, light brown	3.0 13.5			7-7-10-10 N=17	2	18
3	CLAYEY SAND (SC)	fine grained, gray	4.0 12.5				16	18
5	SAND (SP)	fine grained, gray, medium dense, with sand to gravel size shell fragments	5 8.5			4-5-4-5 N=9		
5	SAND (SP)	fine grained, gray, loose	8.0 8.5			3-4-4-4 N=8		
	SAND (SP)		10.0 6.5			3-3-4-5 N=7		
<b>Boring Terminated at 10 Feet</b>								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Mud Rotary / SPT Method  
Continuous sampling upper 10 feet  
Samples at 5-foot intervals below 10 feet

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

**Abandonment Method:**  
Boring backfilled with bentonite chips upon completion.  
Pavement repaired with asphalt cold patch

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

▽ 0.7 feet during drilling



Boring Started: 11-01-2019

Boring Completed: 11-01-2019

Drill Rig: CME 45B

Driller: B. Phillips

Project No.: HD195036

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL - HD195036 FPL PATHWAY DRY D.G.P.J TERRACON\_DATATEMPLATE.GDT 4/2/20

# BORING LOG NO. TB-3

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL HD195036 FPL PATHWAY DRY D.G.PJ TERRACON\_DATATEMPLATE.GDT 4/2/20

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7294° Longitude: -80.2173°  Surface Elev.: 17.3 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
1		<b>ASPHALT</b>	0.3					
2		<b>SHELLROCK BASE</b> , light brown	0.9			25-10-9-11 N=19		
		<b>SAND (SP)</b> , fine grained, gray, trace gravel	2.5					
5		<b>SAND (SP)</b> , fine grained, brown	3.1	▽		7-5-7-7 N=12		
3		<b>CLAYEY SAND (SC)</b> , fine grained, brown	3.6					
		<b>SAND WITH CLAY (SP-SC)</b> , fine grained, gray	4.0					
4		<b>CEMENTED SAND AND SHELL</b> , gray	5.0			3-3-3-4 N=6		
		<b>SAND (SP)</b> , fine grained, gray, loose, with sand to gravel size shell fragments	8.0			3-3-4-4 N=7		
5		<b>SAND (SP)</b> , fine grained, light gray, loose	10.0			3-3-3-3 N=6		
<b>Boring Terminated at 10 Feet</b>								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Mud Rotary / SPT Method  
Continuous sampling upper 10 feet  
Samples at 5-foot intervals below 10 feet

**Abandonment Method:**  
Boring backfilled with bentonite chips upon completion.  
Pavement repaired with asphalt cold patch

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

See [Supporting Information](#) for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS
▽ 2.4 feet during drilling

1225 Omar Rd  
West Palm Beach, FL

Boring Started: 11-13-2019	Boring Completed: 11-13-2019
Drill Rig: CME 45B	Driller: B. Phillips
Project No.: HD195036	

# BORING LOG NO. TB-4

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. HD195036 FPL PATHWAY DRY D.GPJ TERRACON\_DATATEMPLATE.GDT 4/2/20

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7282° Longitude: -80.2174°  Surface Elev.: 16.2 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
1		0.4 <b>ASPHALT</b> 16	0.4					
2		0.9 <b>SHELLROCK BASE</b> , light brown 15.5	0.9			27-13-11-14 N=24		
		1.6 <b>SAND (SP)</b> , fine grained, brown, trace gravel 14.5	1.6	▽				
4		<b>CEMENTED SAND AND SHELL</b> , gray				9-9-6-6 N=15		
		4.0 <b>SAND (SP)</b> , fine grained, brown, medium dense, some sand to gravel size shell fragments 12	4.0			9-11-10-9 N=21		
		6.5 <b>SAND (SP)</b> , fine grained, brown to gray, very loose to medium dense 9.5	6.5			3-6-8-10 N=14	1	19
						8-8-8-8 N=16		
						5-4-6 N=10		
5						4-5-7 N=12		
						5-5-6 N=11		

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Mud Rotary / SPT Method  
Continuous sampling upper 10 feet  
Samples at 5-foot intervals below 10 feet

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

**Abandonment Method:**  
Boring backfilled with bentonite chips upon completion.  
Pavement repaired with asphalt cold patch

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

▽ 1.4 feet during drilling



Boring Started: 11-13-2019

Boring Completed: 11-13-2019

Drill Rig: CME 45B

Driller: B. Phillips

Project No.: HD195036

# BORING LOG NO. TB-4

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7282° Longitude: -80.2174°  Surface Elev.: 16.2 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
	5	<b>SAND (SP)</b> , fine grained, brown to gray, very loose to medium dense <i>(continued)</i>	30		X	2-1-1 N=2	4	28
			35		X	2-2-1 N=3		
		<b>SAND (SP)</b> , fine grained, gray, medium dense, trace to some fragmental limestone	38.0		X	3-5-7 N=12	3	29
			40		X	3-3-5 N=8		
			45		X	11-7-8 N=15		
		<b>COQUINA LIMESTONE</b> , gray	48.0		X			
	6		50.0		X			
		<b>Boring Terminated at 50 Feet</b>	-22					
			-32					
			-34					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Mud Rotary / SPT Method  
Continuous sampling upper 10 feet  
Samples at 5-foot intervals below 10 feet

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

**Abandonment Method:**  
Boring backfilled with bentonite chips upon completion.  
Pavement repaired with asphalt cold patch

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

1.4 feet during drilling



1225 Omar Rd  
West Palm Beach, FL

Boring Started: 11-13-2019

Boring Completed: 11-13-2019

Drill Rig: CME 45B

Driller: B. Phillips

Project No.: HD195036

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. HD195036 FPL PATHWAY DRY D.G.P.J. TERRACON\_DATATEMPLATE.GDT 4/2/20

# BORING LOG NO. TB-5

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7268° Longitude: -80.2174°  Surface Elev.: 16.6 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
1	ASPHALT	0.3 - 16.5	0.3					
2	SHELLROCK BASE, light brown	1.0 - 15.5	1.0			24-13-11-14 N=24		
2	SAND (SP), fine grained, gray, some limerock gravel	2.0 - 14.5	2.0	▽				
5	SAND (SP), fine grained, gray, dense, some sand to gravel size shell fragments	4.0 - 12.5	4.0			11-13-14-11 N=27	4	11
4	CEMENTED SAND AND SHELL, gray	6.5 - 10	6.5			5-6-6-6 N=12		
5	SAND (SP), fine grained, gray, medium dense, with sand to gravel size shell fragments	8.0 - 8.5	8.0			4-5-9-10 N=14		
5	SAND (SP), fine grained, gray, medium dense	8.5 - 6.5	8.5			6-6-6-6 N=12		
		<b>Boring Terminated at 10 Feet</b>	10.0					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Mud Rotary / SPT Method  
Continuous sampling upper 10 feet  
Samples at 5-foot intervals below 10 feet

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

**Abandonment Method:**  
Boring backfilled with bentonite chips upon completion.  
Pavement repaired with asphalt cold patch

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

▽ 1.8 feet during drilling



Boring Started: 11-13-2019

Boring Completed: 11-13-2019

Drill Rig: CME 45B

Driller: B. Phillips

Project No.: HD195036

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL - HD195036 FPL PATHWAY DRY D.G.P.J TERRACON\_DATATEMPLATE.GDT 4/2/20

# BORING LOG NO. TB-6

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7241° Longitude: -80.2175°  Surface Elev.: 16.6 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
1	ASPHALT	0.3 - 1.2	16.5 15.5			28-10-9-6 N=19		
2	SHELLROCK BASE	1.2 - 2.0	15.5 14.5	▽				
3	CLAYEY SAND (SC)	2.0 - 5.0	14.5 11.5			3-3-4-5 N=7	26	16
5	SAND (SP)	5.0 - 8.0	11.5 8.5			3-3-3-5 N=6		
	SAND (SP)	8.0 - 10.0	8.5 6.5			3-4-4-4 N=8  4-4-5-4 N=9		
		<b>Boring Terminated at 10 Feet</b>						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Mud Rotary / SPT Method  
Continuous sampling upper 10 feet  
Samples at 5-foot intervals below 10 feet

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

**Abandonment Method:**  
Boring backfilled with bentonite chips upon completion.  
Pavement repaired with asphalt cold patch

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

▽ 2 feet during drilling



Boring Started: 11-14-2019

Boring Completed: 11-14-2019

Drill Rig: CME 45B

Driller: B. Phillips

Project No.: HD195036

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL HD195036 FPL PATHWAY DRY D.G.PJ TERRACON\_DATATEMPLATE.GDT 4/2/20

# BORING LOG NO. TB-7

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.72° Longitude: -80.2177°  Surface Elev.: 16.4 (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
		ELEVATION (Ft.)						
1	ASPHALT		0.4					
	SHELLROCK BASE	light brown	1.0			47-14-9-14 N=23		
	SAND WITH SILT (SP-SM)	fine grained, brown	1.6			9-13-10-8 N=23		
5	SAND (SP)	fine grained, light brown to dark brown, medium dense		▽		3-6-6-8 N=12		
	CLAYEY SAND (SC)	fine grained, gray, medium dense	4.5			4-5-7-7 N=12		
3	SAND (SP)	fine grained, brown, medium dense	6.0			4-4-4-4 N=8		
5	SAND (SP)	fine grained, brown, medium dense	10.0					
<b>Boring Terminated at 10 Feet</b>			6.5	10				

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Mud Rotary / SPT Method  
Continuous sampling upper 10 feet  
Samples at 5-foot intervals below 10 feet

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

**Abandonment Method:**  
Boring backfilled with bentonite chips upon completion.  
Pavement repaired with asphalt cold patch

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

▽ 2.7 feet during drilling



Boring Started: 11-14-2019

Boring Completed: 11-14-2019

Drill Rig: CME 45B

Driller: B. Phillips

Project No.: HD195036

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL - HD195036 FPL PATHWAY DRY D.G.PJ TERRACON\_DATATEMPLATE.GDT 4/2/20



# BORING LOG NO. TB-8

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7147° Longitude: -80.2179°  Surface Elev.: 16.3 (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
		ELEVATION (Ft.)						
1	ASPHALT	0.4	16					
	SHELLROCK BASE, light brown	1.0	15.5			31-10-11-10 N=21		
3	SAND WITH CLAY (SP-SC), fine grained, brown	2.0	14.5					
5	SAND (SP), fine grained, brown	2.4	14					
3	CLAYEY SAND, brown, medium dense	4.0	12.5	▽		7-7-7-8 N=14		
	SAND WITH CLAY (SP-SC), fine grained, gray	4.5	12					
	SAND (SP), fine grained, gray, medium dense, with sand to gravel size shell fragments	7.0	9.5			5-8-8-12 N=16		
5	SAND (SP), fine grained, brown, loose	10.0	6.5			7-6-6-5 N=12		
	Boring Terminated at 10 Feet		10			2-3-2-3 N=5		

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

**Advancement Method:**  
Mud Rotary / SPT Method  
Continuous sampling upper 10 feet  
Samples at 5-foot intervals below 10 feet

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

**Abandonment Method:**  
Boring backfilled with bentonite chips upon completion.  
Pavement repaired with asphalt cold patch

See [Supporting Information](#) for explanation of symbols and abbreviations.

WATER LEVEL OBSERVATIONS
▽ 3.7 feet during drilling



Boring Started: 11-14-2019	Boring Completed: 11-14-2019
Drill Rig: CME 45B	Driller: B. Phillips
Project No.: HD195036	





THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL - HD195036 FPL PATHWAY DRY D.G.PJ TERRACON\_DATATEMPLATE.GDT 4/2/20

# BORING LOG NO. AB-1

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7352° Longitude: -80.2167°  Surface Elev.: 17.7 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
2		<b>SAND (SP)</b> , fine grained, gray, some limerock gravel, trace grass roots in upper few inches	1.0					
5		<b>SAND (SP)</b> , fine grained, brown	2.5	▽				
3		<b>CLAYEY SAND (SC)</b> , fine grained, brown	3.6					
4		<b>CEMENTED SAND AND SHELL</b> , gray	5.0					
<b>Boring Terminated at 5 Feet</b>								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: N/A

Advancement Method:  
Hand Auger with PVC casing

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings.

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

▽ 1.8 feet during drilling



Boring Started: 11-18-2019

Boring Completed: 11-18-2019

Drill Rig: Hand Auger

Driller: B. Phillips

Project No.: HD195036

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL HD195036 FPL PATHWAY DRY D.GPJ TERRACON\_DATATEMPLATE.GDT 4/2/20

# BORING LOG NO. AB-2

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7334° Longitude: -80.2169°  Surface Elev.: 17.1 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
		DEPTH						
5		<b>SAND (SP)</b> , fine grained, brown, some grass roots in upper few inches	14	▽				
3		<b>CLAYEY SAND (SC)</b> , fine grained, gray	12.5					
5		<b>SAND WITH SILT (SP-SM)</b> , fine grained, gray, with cemented sand and shell fragments <b>Boring Terminated at 5 Feet</b>	12					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: N/A

Advancement Method:  
Hand Auger with PVC casing

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings.

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

▽ 0.7 feet during drilling



Boring Started: 11-18-2019

Boring Completed: 11-18-2019

Drill Rig: Hand Auger

Driller: B. Phillips

Project No.: HD195036

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL HD195036 FPL PATHWAY DRY D.GPJ TERRACON\_DATATEMPLATE.GDT 4/2/20

# BORING LOG NO. AB-3

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.732° Longitude: -80.2171°  Surface Elev.: 17.2 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
		DEPTH						
5		<b>SAND (SP)</b> , fine grained, gray to brown	2.2	▽				
3		<b>CLAYEY SAND (SC)</b> , fine grained, gray	3.1					
4		<b>CEMENTED SAND AND SHELL</b> , gray	5.0					
<b>Boring Terminated at 5 Feet</b>			5					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: N/A

Advancement Method:  
Hand Auger with PVC casing

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings.

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

▽ 0.6 feet during drilling



Boring Started: 11-18-2019

Boring Completed: 11-18-2019

Drill Rig: Hand Auger

Driller: B. Phillips

Project No.: HD195036

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL HD195036 FPL PATHWAY DRY D.GPJ TERRACON\_DATATEMPLATE.GDT 4/2/20

# BORING LOG NO. AB-4

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7299° Longitude: -80.2169°  Surface Elev.: 17.0 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
		DEPTH						
5		<b>SAND (SP)</b> , fine grained, brown, some grass roots in upper few inches	2.8	14	14			
3		<b>CLAYEY SAND (SC)</b> , fine grained, brown	3.3	13.5	13.5			
4		<b>CEMENTED SAND AND SHELL</b> , gray	5.0	12	12			
<b>Boring Terminated at 5 Feet</b>				5				

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: N/A

Advancement Method:  
Hand Auger with PVC casing

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings.

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

▽ 0.5 feet during drilling



Boring Started: 11-18-2019

Boring Completed: 11-18-2019

Drill Rig: Hand Auger

Driller: B. Phillips

Project No.: HD195036

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL HD195036 FPL PATHWAY DRY D.GPJ TERRACON\_DATATEMPLATE.GDT 4/2/20

# BORING LOG NO. AB-5

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7284° Longitude: -80.217°  Surface Elev.: 17.4 (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
		DEPTH ELEVATION (Ft.)						
5		0.8 <b>SAND WITH SILT (SP-SM)</b> , fine grained, dark brown, some grass roots in upper few inches	16.5					
2		1.5 <b>SAND (SP)</b> , fine grained, brown	16	▽				
2		2.0 <b>SAND (SP)</b> , fine grained, brown, trace to some gravel	15.5					
3		2.3 <b>CLAYEY SAND (SC)</b> , fine grained, brown, some fragmental limestone	15					
3		<b>CLAYEY SAND (SC)</b> , fine grained, gray	13.5					
3		<b>SAND WITH CLAY (SP-SC)</b> , fine grained, gray	12.5					
<b>Boring Terminated at 5 Feet</b>			5					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: N/A

Advancement Method:  
Hand Auger with PVC casing

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings.

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

▽ 1.6 feet during drilling



Boring Started: 11-18-2019

Boring Completed: 11-18-2019

Drill Rig: Hand Auger

Driller: B. Phillips

Project No.: HD195036

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL HD195036 FPL PATHWAY DRY D.GPJ TERRACON\_DATATEMPLATE.GDT 4/2/20

# BORING LOG NO. AB-6

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7269° Longitude: -80.217°  Surface Elev.: 17.5 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
		DEPTH						
5		<b>SAND (SP)</b> , fine grained, brown, some grass roots in upper few inches	2.5	▽				
3		<b>SAND WITH CLAY (SP-SC)</b> , fine grained, brown	3.0					
5		<b>SAND WITH SILT (SP-SM)</b> , fine grained, brown to gray	4.4					
4		<b>CEMENTED SAND AND SHELL</b> , gray	5.0					
<i>Boring Terminated at 5 Feet</i>								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: N/A

Advancement Method:  
Hand Auger with PVC casing

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings.

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

▽ 2.0 feet during drilling



Boring Started: 11-18-2019

Boring Completed: 11-18-2019

Drill Rig: Hand Auger

Driller: B. Phillips

Project No.: HD195036

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL HD195036 FPL PATHWAY DRY D.GPJ TERRACON\_DATATEMPLATE.GDT 4/2/20

# BORING LOG NO. AB-7

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7233° Longitude: -80.2169°  Surface Elev.: 16.5 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
5		<b>SAND (SP)</b> , fine grained, brown, some grass roots in upper few inches	1.3	▽				
3		<b>CLAYEY SAND (SC)</b> , fine grained, brown	1.8					
5		<b>SAND WITH SILT (SP-SM)</b> , fine grained, brown to gray	3.8					
4		<b>CEMENTED SAND AND SHELL</b> , gray	5.0					
<b>Boring Terminated at 5 Feet</b>								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: N/A

Advancement Method:  
Hand Auger with PVC casing

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings.

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

▽ 0.6 feet during drilling



Boring Started: 11-18-2019

Boring Completed: 11-18-2019

Drill Rig: Hand Auger

Driller: B. Phillips

Project No.: HD195036

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL HD195036 FPL PATHWAY DRY D.GPJ TERRACON\_DATATEMPLATE.GDT 4/2/20



# BORING LOG NO. AB-8

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7207° Longitude: -80.2173°  Surface Elev.: 15.1 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
5		<b>SAND (SP)</b> , fine grained, brown, some grass roots in upper few inches	14	▽				
7		<b>ORGANIC SAND (PT)</b> , dark brown, with roots	13					
3		<b>CLAYEY SAND (SC)</b> , fine grained, dark brown	12.5					
3		<b>SAND WITH CLAY (SP-SC)</b> , fine grained, gray, some sand size shell fragments	11					
5		<b>SAND (SP)</b> , fine grained, gray, some sand to gravel size shell fragments	10					
<b>Boring Terminated at 5 Feet</b>								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: N/A

Advancement Method:  
Hand Auger with PVC casing

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings.

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

▽ 0.5 feet during drilling



Boring Started: 11-18-2019

Boring Completed: 11-18-2019

Drill Rig: Hand Auger

Driller: B. Phillips

Project No.: HD195036

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL HD195036 FPL PATHWAY DRY D.GPJ TERRACON\_DATATEMPLATE.GDT 4/2/20

# BORING LOG NO. AB-9

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.717° Longitude: -80.2173°  Surface Elev.: 16.7 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
		DEPTH						
5		<b>SAND (SP)</b> , fine grained, gray to brown	5.0	11.5	5			
		<b>Boring Terminated at 5 Feet</b>						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: N/A

Advancement Method:  
Hand Auger with PVC casing

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings.

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

▽ 2.8 feet during drilling



Boring Started: 11-18-2019

Boring Completed: 11-18-2019

Drill Rig: Hand Auger

Driller: B. Phillips

Project No.: HD195036

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL HD195036 FPL PATHWAY DRY D.GPJ TERRACON\_DATATEMPLATE.GDT 4/2/20

# BORING LOG NO. AB-10

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7128° Longitude: -80.2173°  Surface Elev.: 13.0 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
5		<b>SAND (SP)</b> , fine grained, gray to brown, some grass roots in upper few inches	1.9	▽				
2		<b>SAND (SP)</b> , fine grained, gray, trace limerock gravel and shell	5.0					
<b>Boring Terminated at 5 Feet</b>			5					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: N/A

Advancement Method:  
Hand Auger with PVC casing

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:  
Boring backfilled with soil cuttings.

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

▽ 0.7 feet during drilling



Boring Started: 11-18-2019

Boring Completed: 11-18-2019

Drill Rig: Hand Auger

Driller: B. Phillips

Project No.: HD195036

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL HD195036 FPL PATHWAY DRY D.GPJ TERRACON\_DATATEMPLATE.GDT 4/2/20

# PIEZOMETER LOG NO. PZ-1

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL HD195036 FPL PATHWAY DRY D.G.PJ TERRACON\_DATATEMPLATE.GDT 4/2/20

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7306° Longitude: -80.2171°  Surface Elev.: 17.3 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
2		<b>SAND (SP)</b> , fine grained, brown, trace gravel	1.3	▽				
5		<b>SAND (SP)</b> , fine grained, brown	3.4				4	17
3		<b>CLAYEY SAND (SC)</b> , fine grained, gray	4.6					
		<b>SAND (SP)</b> , fine grained, gray, some sand to gravel size shell fragments	6.5					
		<b>SAND (SP)</b> , fine grained, brown	15.0					
<b>Boring Terminated at 15 Feet</b>			15					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: N/A

Advancement Method:  
Hollow Stem Auger (HSA)

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:  
Screen interval from 10 to 15 feet

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

▽ 0.3 at completion of installation



Boring Started: 10-31-2019

Boring Completed: 10-31-2019

Drill Rig: CME 45B

Driller: B. Phillips

Project No.: HD195036

# PIEZOMETER LOG NO. PZ-2

**PROJECT:** FPL Pathway Dry Detention Ponds

**CLIENT:** Village of Royal Palm Beach FL  
Royal Palm Beach, FL

**SITE:** La Mancha Avenue  
Village of Royal Palm Beach, FL

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 26.7275° Longitude: -80.2172°  Surface Elev.: 17.3 (Ft.) ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERCENT FINES	WATER CONTENT (%)
2		<b>SAND (SP)</b> , fine grained, gray, with limerock gravel and some fine roots	0.9 16.5	▽				
5		<b>SAND WITH SILT (SP-SM)</b> , fine grained, dark brown	3.5 14					
3		<b>SAND (SP)</b> , fine grained, brown	5.0 12.5					
5		<b>CLAYEY SAND (SC)</b> , fine grained, gray	5.6 11.5					
5		<b>SAND (SP)</b> , fine grained, gray	15.0 2.5					
<b>Boring Terminated at 15 Feet</b>			15					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: N/A

Advancement Method:  
Hollow Stem Auger (HSA)

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:  
Screen interval from 10 to 15 feet

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**

▽ 1.2 at completion of installation



Boring Started: 10-31-2019

Boring Completed: 10-31-2019

Drill Rig: CME 45B

Driller: B. Phillips

Project No.: HD195036

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL HD195036 FPL PATHWAY DRY D.G.PJ TERRACON\_DATATEMPLATE.GDT 4/2/20