

# ECS Florida, LLC

Preliminary Subsurface Exploration  
and Geotechnical Engineering Report

Industrial Development – Pompano Beach

Atlantic Blvd and Andrews Ave  
Pompano Beach, Broward County, Florida 33069

ECS Project Number 25:3896/3970

October 31, 2022

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October 31, 2022

Alliance West Atlantic, LLC  
c/o Eric Carlson  
40 Morris Avenue, Suite 230  
Bryn Mawr, PA 19010

ECS Project No. 25:3896/3970

Reference: Preliminary Subsurface Exploration and Geotechnical Engineering Report  
**Industrial Development – Pompano Beach**  
Atlantic Blvd and Andrews Ave  
Pompano Beach, FL 33069

Dear Mr. Lall:

ECS Florida, LLC (ECS) has completed the preliminary subsurface exploration, laboratory testing, and geotechnical engineering analyses for the above-referenced project. Our services were performed in general accordance with our agreed to scope of work. This report presents our understanding of the geotechnical aspects of the project, the results of the field exploration conducted, and our geotechnical design and construction recommendations for the project.

It has been our pleasure to be of service to you during the due diligence phase of this project. We would appreciate the opportunity to remain involved during the continuation of the design phase, and we would like to provide our services during construction phase operations as well to verify subsurface conditions assumed for this report. Should you have any questions concerning the information contained in this report, or if we can be of further assistance to you, please contact us.

Respectfully submitted,

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## **APPENDICES**

### **Appendix A – Diagrams**

- Site Location Diagram
- Boring Location Diagram 3896
- Boring Location Diagram 3970
- Generalized Subsurface Profile A-A', B-B', C-C'
- Flood Map
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### **Appendix B – Field Operations**

- Reference Notes for Boring Logs
- Subsurface Exploration Procedure: Standard Penetration Testing (SPT)
- Boring Logs
- Exfiltration Test Results

### **Appendix C – Supporting Documents**

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## EXECUTIVE SUMMARY

This executive summary is intended as a very brief overview of the primary geotechnical conditions that are expected to affect design and construction. Information gleaned from the executive summary should not be utilized in lieu of reading the entire geotechnical report.

- The purpose of this geotechnical exploration was to provide subsurface information for the design and construction of the proposed industrial buildings. We presume that the proposed buildings are going to be single story tilt-up panel. Based on our field observations and aerial images, the site is currently developed and being used as an industrial park area.
- The geotechnical exploration performed for the planned development included 14 soil test borings drilled to depths in the range of 10 feet to 30 feet below the existing ground surface. Subsurface conditions within the borings generally consisted of Fine SAND (SP), from existing grade to maximum termination depth of the borings (30 feet below existing grade).
- Structural information was not available at the time of this report. Based on our experience for similar concrete buildings the presumed maximum loads are 200-kip column loads and 4 kips per linear foot of wall loads, the proposed building may be supported on conventional shallow foundations bearing at a presumed elevation of approximately EL.+11.0 feet-datum on natural soils with an allowable net bearing capacity in the range of 2,000 psf and 3,000 psf.
- For preliminary design, we recommend using a three-layer pavement section consisting of stabilized subgrade, base course, and surface course. For rigid pavement, we recommend using a two-layer pavement section of stabilized subgrade and surface course. The pavement layers may be placed on existing, prepared subgrade or compacted fill.
- Based on the presumed design grades, we anticipate localized dewatering for the construction of the footings and utilities that extend 4 feet below existing grade surface. It is our opinion that localized dewatering can be achieved using sump pumps.
- Due to the developed nature of the site, there is a possibility that existing underground utilities may be present. Any existing utilities should be removed or abandoned in place.
- Based on ECS' understanding and review of available documents for Atlantic Lumber, arsenic was identified in the soil and groundwater and is confined to the property.
- We should be retained to review the design documents for conformance with our recommendations and be retained for construction materials testing and special inspections to facilitate proper implementation of our recommendations.

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## 1.0 INTRODUCTION

The purpose of this preliminary geotechnical exploration was to provide preliminary subsurface information for the design and construction of the proposed industrial buildings. We presume that the proposed buildings are expected to be single-story tilt-up panel structures with associated pavement areas and a stormwater management pond. The recommendations developed for this report are based on project information provided by Bohler Engineering. **ECS has already prepared and submitted a Subsurface and Exploration and Geotechnical Engineering Report dated May 13, 2022, for the proposed industrial buildings at the subject site and will use information from that report to supplement the findings found during this exploration.**

Our services were provided in accordance with our Proposal No. 25:8084, dated April 6, 2022, as authorized by Merouane El Kaoussi with Bohler Engineering on April 8, 2022, and the Subconsultant Master Agreement between ECS Florida, LLC and Bohler Engineering, dated January 24, 2018. Additional subsurface exploration services were provided in accordance with our Proposal No. 25:8224-GP dated October 18, 2022 as authorized by Eric Carlson with Bohler Engineering on October 19, 2022, and the Subconsultant Master Agreement between ECS Florida, LLC and Bohler Engineering, dated January 24, 2018.

This report contains the procedures and results of our subsurface exploration and laboratory testing programs, review of existing site conditions, engineering analyses, and recommendations for the design and construction of the project.

The report includes the following items.

- A brief review and description of our field and laboratory test procedures and the results of testing conducted,
- A review of area and site geologic conditions,
- A review of subsurface soil stratigraphy with pertinent available physical properties,
- Final copies of our soil exploration/test boring logs,
- Preliminary recommendations for site preparation,
- Preliminary recommendations for structural fill placement,
- Preliminary recommended soil bearing pressures and foundation type,
- Preliminary recommendation for standard and heavy-duty pavement, and
- Preliminary evaluation and recommendations relative to groundwater control.

Our assessment was confined to the zone of soil likely to be stressed by the proposed construction. Our work did not address the potential for subsurface expression of deep geological conditions, such as sinkhole development related to karst activity. This evaluation requires a more extensive range of field services than performed in this study. We will be pleased to conduct an exploration to evaluate the probable effect of the regional geology upon the proposed construction if you desire.

## 2.0 PROJECT INFORMATION

### 2.1 SITE INFORMATION

The site is located at Atlantic Blvd and Andrews Ave. in Pompano Beach, Broward County, Florida, at the approximate location shown in the following figure below.



Figure 2.1.1. Site Location

ECS reviewed aerial photographs of the subject property and immediate surrounding properties on History Aerials and Google Earth© Historical Imagery databases dating to 1940. Prior to 1999 the subject area was an undeveloped grass covered lot. In 1999 the subject area was developed and used as pavement parking areas and has remained relatively unchanged to current day.

### 2.2 PROPOSED CONSTRUCTION

We understand that the planned development is to include industrial buildings and we presume the buildings will be constructed using tilt-up panels. Structural design information was not available at the time of this report. However, based on our experience with similar projects the buildings will likely have column loads exceeding 200-kip column loads and wall loads not exceeding 4 kips per linear foot, respectively.

The following information included in Table 2.2.1 explain our understanding of the structures and their corresponding loads; please note that details of the construction of the proposed building and were not available at the time this report was prepared and we have made some assumptions based on similar projects and our experience.

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**Table 2.2.1 Preliminary Design Values**

SUBJECT	PRELIMINARY DESIGN INFORMATION / EXPECTATIONS
# of Stories	1-story above grade
Usage	Industrial
Framing	We anticipate that the building will be tilt-up panel
Column Loads	200 kips (Full Dead and Factored Live)
Wall Loads	4 kips per linear foot (klf) maximum
Lowest Finish Floor Elevation <sup>(3)</sup>	Expected EL.+11.00 feet-datum
Column Spacing	Expected approximately 30 x 30 feet (maximum)

(1) If actual structural loads differ from these loads ECS must be contacted immediately to revise building foundation recommendations and settlement calculations as needed.

(2) The ground surface elevations were not surveyed by a licensed surveyor; therefore, the elevations shown are approximate and were inferred from Google-Earth® maps. The elevations described in this report should not be relied upon for site design.

(3) The lowest finished floor elevation is presumed to be 1-foot above the Base Flood Elevation of EL.+6.0.

### 3.0 FIELD EXPLORATION AND LABORATORY TESTING

Our exploration procedures are explained in greater detail in Appendix B including the insert titled Subsurface Exploration Procedures. Our scope of work included drilling 14 borings in the range of 10 feet to 30 feet below existing grade surface. The intent of the borings was to provide general subsurface stratigraphy for due diligence purposes.

Boring locations were identified in the field by ECS personnel using GPS techniques prior to mobilization of our drilling equipment and their approximate locations are shown on the Boring Location Diagram in Appendix A. The approximate as-drilled boring locations are shown on the Boring Location Diagram in Appendix A. Ground surface elevations noted on our boring logs were interpolated from published topographic information and should be considered approximate. We recommend that boring location survey be performed by a professional surveyor to extend the usefulness of the subsurface information gathered. Standard penetration tests (SPTs) were conducted in the borings at regular intervals in general accordance with ASTM D 1586. Small representative samples were obtained during these tests and were used to classify the soils encountered. The standard penetration resistances obtained to provide a general indication of soil density and correlate to shear strength parameters.

#### 3.1 USUAL OPEN HOLE TESTING

Usual open hole testing was performed in accordance with procedures of South Florida Water Management District (SFWMD) Usual Condition Test procedure found in the SFWMD Environmental Resource Permit Information Manual Volume IV (September 2010 edition) at the locations denoted as exfiltration tests EXF-01, EXF-02, and EXF-03 on the attached Exfiltration Log found in Appendix B which includes the hydraulic conductivity ( $K_{IV}$  value). The  $K_{IV}$ -values are summarized below.

**Summary of Exfiltration Test Result Performed on 4/22/2022**

Tests	$K_{IV}$ -Value (cfs/ft <sup>2</sup> -ft head)
EXF-01/P-01	$2.37 \times 10^{-4}$

Note: Refer to the attached Usual Open Hole Test summary sheets for detailed information

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### Summary of Exfiltration Test Results Performed on 10/24/2022

Tests	K <sub>IV</sub> -Value (cfs/ft <sup>2</sup> –ft head)
EXF-01	9.68×10 <sup>-4</sup>
EXF-02	8.01×10 <sup>-4</sup>
EXF-03	1.05×10 <sup>-3</sup>

Note: Refer to the attached Usual Open Hole Test summary sheets for detailed information

## 3.2 SUBSURFACE CHARACTERIZATION

The subsurface conditions encountered were generally consistent with published geological mapping. The following sections provide generalized characterizations of the soil strata. Please refer to the boring logs in Appendix B.

The South Florida region is located on the southern flank of Florida Plateau, a stable, carbonate platform on which thick deposits of limestones, dolomites, and evaporates have accumulated. The general geology of the upper 200 feet of this platform within the area of South Florida where the proposed project is to be located is composed predominantly of limestone and quartz sand. The two geological formations that usually are encountered from west to east within Broward County are: Shelly Sediments of Plio-Pleistocene age and Miami Limestone.

### Proposed Building Generalized Stratigraphy

Approximate Depth (ft)	Elevation <sup>(1)</sup> (ft)	Stratum	Description	Ranges of SPT <sup>(2)</sup> N-values (bpf)
0.0 – 0.9	EL.+10.0 to EL.+7.2	N/A	Surficial Material: Asphalt [1.00"], Concrete [3.00"] and Limerock Base [2.00" to 10.00"]	N/A
0.9 – 5.0	EL.+9.5 to EL.+4.0	I	Fine SAND (SP), loose and dense, brown and gray	7 – 31
5.0 – 12.0	EL.+5.0 to EL.-7.5	II	Limestone, soft, highly weathered	3 – 41
12.0 – 30.0	EL.0.0 to EL.-22.0	III	Fine SAND (SP), loose and very dense, brown	8 – 66

#### Notes:

- (1) Please note that the ground surface elevations were interpolated from the grading plan provided; therefore, elevation ranges are approximate.
- (2) SPT refers to Standard Penetration Test.
- (3) Limestone was not encountered in Borings B-05 and B-07.
- (4) Boring B-07 encountered a very loose 5 foot thick SM layer beginning approximately 6 feet below existing grade surface.

A graphical presentation of the subsurface conditions is shown on the Generalized Subsurface Profile Diagrams included in Appendix A.

## 3.3 GROUNDWATER OBSERVATIONS

Water levels were measured in our boring logs in Appendix B. Groundwater depths measured at the time of drilling ranged from 4.0 feet to 5.9 feet below the ground surface. Variations in the long-term water table may occur because of changes in precipitation, evaporation, surface water runoff, construction activities, and other factors. Based upon our interpretation of the subsurface

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data, it appears that the seasonal high groundwater level is at depths ranging from approximately 3.0 feet to 4.9 feet.

Based on the Flood Insurance Rate Map (FIRM) Map Number 12011C0357H of Broward County, effective date August 18, 2014, indicates part most of the site is within Flood Zone AH, which is special flood hazard area that has a Base Flood Elevation (BFE) of EL.+11.0.

### 3.4 LABORATORY TESTING

Each sample was visually classified on the basis of texture and plasticity in accordance with ASTM D2488 Standard Practice for Description and Identification of Soils (Visual-Manual Procedures) including USCS classification symbols. After classification, the samples were grouped in the major zones noted on the boring logs in Appendix B. The group symbols for each soil type are indicated in parentheses along with the soil descriptions. The stratification lines between strata on the logs are approximate; in situ, the transitions may be gradual.

## 4.0 PRELIMINARY DESIGN RECOMMENDATIONS

### 4.1 BUILDING/STRUCTURE DESIGN

#### 4.1.1 Foundations

Provided subgrades and structural fills are prepared as recommended in this report and our presumptions are correct, the proposed structure can be supported by shallow foundations including column footings and continuous wall footings. The anticipated bearing capacity is in the range of 2,000 psf and 3,000 psf with settlements estimates not exceeding 1" total and  $\frac{3}{4}$ " differential. A final geotechnical study should be performed to further evaluate the foundation design.

**Potential Undercuts:** If soft or unsuitable soils are observed at the footing bearing elevations, the unsuitable soils should be undercut and replaced with approved structural fill or with lean concrete ( $f'c \geq 1,000$  psi at 28 days) or No. 57 stone, as applicable, up to the original design bottom of footing elevation.

#### 4.1.2 Floor Slabs

Provided subgrades and structural fills are prepared as discussed herein, the proposed floor slabs can be constructed as Ground Supported Slabs (or Slab-On-Grade). Based on a lowest finished floor elevation, it appears that the slabs will bear on compacted fill and/or Stratum I - SAND (SP). However, there may be areas of loose or yielding soils that should be removed from below the structure foundation and the slab footprints, plus and extended horizontal distance of 5 feet and replaced with compacted structural fill in accordance with the recommendations included in this report.

Soft or yielding soils may be encountered in some areas. Those soils should be removed and replaced with compacted Structural Fill in accordance with the recommendations included in this report.

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**Subgrade Modulus:** Provided the structural fill and granular drainage layer are constructed in accordance with our recommendations, the slab may be designed assuming a modulus of subgrade reaction,  $k_1$  of 150 pci (lbs./cu. inch). The modulus of subgrade reaction value is based on a one foot by one foot plate load test basis.

**Vapor Barrier:** Before the placement of concrete, a vapor barrier may be placed on top of the granular drainage layer to provide additional protection against moisture penetration through the floor slab. When a vapor barrier is used, special attention should be given to surface curing of the slab to reduce the potential for uneven drying, curling and/or cracking of the slab. Depending on proposed flooring material types, the structural engineer and/or the architect may choose to eliminate the vapor barrier.

**Slab Isolation:** Soil-supported slabs should be isolated from the foundations and foundation-supported elements of the structure so that differential movement between the foundations and slab will not induce excessive shear and bending stresses in the floor slab. Where the structural configuration prevents the use of a free-floating slab such as in a drop-down footing/monolithic slab configuration, the slab should be designed with suitable reinforcement and load transfer devices to preclude overstressing of the slab.

## 4.2 PRELIMINARY SITE DESIGN CONSIDERATIONS

### 4.2.1 Pavements

**Subgrade Characteristics:** Based on the results of our soil test borings, it appears that the soils that will be exposed as pavement subgrade will consist mainly of structural fill material and/or sandy soils. The pavement design assumes subgrades consist of suitable materials evaluated by ECS and placed and compacted to at least 98 percent of the maximum dry density as determined by the Modified Proctor test (ASTM D1557).

**Pavement Considerations:** Pavement subgrades should be prepared in accordance with the recommendations in Section 5.2.1 Structural Fill. We are providing recommendations for both standard duty and heavy duty flexible and rigid pavements sections. For the design and construction of exterior pavements, the subgrade should be prepared in strict accordance with the recommendations in the geotechnical report. An important consideration with the design and construction of pavements is surface and subsurface drainage. Where standing water develops, softening of the subgrade and other problems related to the premature deterioration of the pavement can be expected.

For flexible pavement, we recommend using a three-layer pavement section consisting of stabilized subgrade, base course, and surface course. For rigid pavement, we recommend using a two-layer pavement section of stabilized subgrade and surface course. The pavement layers may be placed on existing, prepared subgrade or compacted fill.

Pavement recommendations are based upon local experience with similar pavement conditions, Florida Department of Transportation (FDOT), and AASHTO Guide for Design of Pavement Structures.

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A minimum separation of 18 inches should be maintained between the pavement aggregate base (limerock) or base course in asphalt pavement areas and the seasonal high groundwater levels. In most cases, this separation is available. No full depth asphalt sections are allowed. Recommended pavement sections are described below in Table 4.2.1.

**Table 4.2.1: Pavement Structures Sections**

Component	Asphalt		Concrete	
	Standard	Heavy	Standard	Heavy
Surface Course	2"	2.5"	5"	6"
Base Course (Limerock)	6"	8"	-	-
Stabilized Subgrade	12"	12"	12"	12"

**Asphalt Surface Course (flexible):** Prime and tack coats should be applied during the construction of the pavement sections in accordance with per Florida Department of Transportation (FDOT) Standard Specifications for Road and Bridge Construction (current edition). Before applying any bituminous material, all loose dust, dirt, and other foreign material which might prevent proper bond with the existing surface should be removed. Care should be taken in cleaning the outer edges, to ensure that the prime or tack coat will adhere. Prior to applying prime coat, the moisture content of the base should be checked to make sure that it does not exceed the optimum moisture.

The asphalt concrete pavement should consist of a Superpave mix Type SP as per FDOT Standard Specifications for Road and Bridge Construction (current edition), Section 334 Superpave Asphalt Concrete. Recycled Asphalt Pavement (RAP) and other recycled materials may be used as indicated in Section 334, previously mentioned. If this is to be a LEED certified project, credits may be awarded for using such materials.

During placement, the compaction efforts should be monitored by ECS, and asphalt should be compacted to a minimum 95 percent laboratory Marshall Density. After placement and field compaction, asphalt surface and base courses shall be randomly cored at minimum rate of three cores per day's placement per mix type, but not less than three cores in light duty areas and three cores in heavy-duty areas shall be obtained. Asphalt concrete pavement samples shall be tested for conformance with density and thickness requirements. Cores shall be cut from minimal loading areas representative of the project.

**Concrete surface course (rigid):** Our recommendations for heavy-duty portland cement concrete (pcc) pavement section is using unreinforced portland cement concrete surface course (Type 1) providing a minimum 28-day compressive strength of 4,000 pounds per square inch (psi). This section would be placed over the compacted limerock base course atop the stabilized subgrade. Appropriate steel reinforcing and jointing should also be incorporated into the design of all pcc. In addition, the concrete should provide a minimum 28-day flexural strength (modulus of rupture) of 600 psi, based on the third point loading of concrete beam samples.

Rigid pavement notes recommendations:

- The surface of the subgrade soils should be free of all soft, unstable, or unsatisfactory soil and smooth and uniform. Any disturbances or wheel rutting corrected prior to placement of concrete.

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- The subgrade soils should be moistened not more than 24 hours prior to placement of concrete but there should be no standing water present during concrete placement.
- Concrete pavement thickness should be uniform throughout, with the exception to thickened edges (curbs or footings).
- The bottom of the pavement base course should be separated from the estimated typical wet season groundwater level by at least one and a half feet.
- Maximum Control Joint Spacing should be 12 feet by 12 feet
- Minimum Sawcut depth should be at least 1/4 of concrete thickness
- Isolation joints are recommended at the interface between concrete pavement and fixed objects such as drainage inlets, light poles, etc.
- Control joints should be sawed as soon as the concrete can withstand traffic and concrete surface and aggregate raveling can be prevented.

It is recommended that dowels be used for all construction joints for new pavements, the interface between new pavement and existing pavements, and interface at existing curb and gutter. It is recommended that 3/4-inch diameter smooth dowels 18 inches long spaced 12 inches on center be used. The full length of the dowels should be lightly oiled.

**Base Course:** Typically, the most prevalent flexible or rigid pavement base material in South Florida is limerock. Limerock is readily available from FDOT approved mines in South Florida. As an alternative base course, crushed concrete could be used. Limerock should have a minimum LBR value of 100 and should be mined from an FDOT approved source. Limerock should be placed in maximum six-inch lifts and compacted to 98 percent of the Modified Proctor (ASTM D1557) maximum dry density. Limerock pavement base shall be in accordance with Section 911 and 200 of the FDOT Specifications for Road and Bridge Construction (Current Edition).

**Stabilized Subgrade:** Stabilized subgrade soil material should be stabilized with rock to a minimum Limerock Bearing Ratio (LBR) value of 40, as specified by FDOT requirements for Type B or Type C Stabilized Subgrade. All stabilized subgrade materials should be compacted to 98 percent of the Modified Proctor (ASTM D1557) maximum dry density. Furthermore, the stabilized subgrade may be imported material or a blend of on-site soils and imported materials. If a blend is proposed, we recommend that the contractor perform a mix design to find the optimum mix proportions. It should be noted that a minimum of 97 percent of the stabilized material should pass a 3½ inch sieve.

Perform compliance testing for base course to a depth of one foot at a frequency of one test per 5,000 square feet, or at a minimum of two test locations, whichever is greater.

**Pavement Subgrade Stabilization with Geogrid and/or Geotextile:** In some of the parking and drive areas of the site, undercutting soft material may be considered inefficient. In such areas the use of a reinforcing geotextile or geogrid might be employed, under the advisement of ECS. Suitable stabilization materials may include medium duty woven geotextile fabrics or geogrids. The suitability and employment of reinforcing or stabilization products should be determined in the field by ECS personnel, in accordance with project specifications.

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Perform compliance testing for base course to a depth of one foot at a frequency of one test per 5,000 square feet, or at a minimum of two test locations, whichever is greater.

#### **4.2.2 Environmental Considerations Based on Provided Environmental Documents**

Based on ECS' understanding and review of available documents for Atlantic Lumber, arsenic was identified in the soil and groundwater and is confined to the property. In accordance with a Declaration of Restrictive Covenant recorded on the property, a two-foot cap covers a majority of the eastern portion of the site. A groundwater use restriction has also been recorded. DRC is attached. Also, there is a railroad track bordering the property to the west, which may have legacy groundwater impacts. Considerations for redevelopment include the following:

- Notification to the Florida Department of Environmental Protection to advise of your planned development
- A Soil Management Plan providing description of how soil will be managed during construction and Engineering Control Plan Modification showing new Engineering Control (i.e. Future Building, Pavement, and/or 2' soil cap) will likely be needed to submit to the FDEP. Following implementation of new engineering control, a re-recording of DRC will likely be needed
- Consideration for stormwater design will be needed to ensure that groundwater plume is not impacted. Some modelling may be necessary to show this.
- If dewatering is needed and will impact the groundwater plume, a dewatering plan will need to be submitted to the FDEP for approval.
- Depending on irrigation requirements, may not be able to use the groundwater. May need to use municipal or reuse water.

During the course of construction and post construction, sampling will likely be needed verifying the proper management of soil and groundwater.

### **5.0 PRELIMINARY SITE CONSTRUCTION RECOMMENDATIONS**

#### **5.1 Subgrade Preparation**

##### **5.1.1 Previous Site Development**

When reviewing our recommendations, please note that there are existing pavements on this site, and that previous grading activities have likely occurred on this site. Our experience with previously graded sites indicates that unexpected conditions can exist that were not encountered by the soil test borings. Unexpected conditions could include areas of soft or loose fill, debris-laden fill, and other obstructions or conditions. There is a possibility that existing underground utilities may be present and should be removed or abandoned in place. It should be noted that if existing or former underground utilities are abandoned and not removed or grouted full, soil may migrate into open voids (e.g., open pipes from utilities), causing subsidence of the overlaying construction. These conditions should be addressed by on-site engineering evaluation by ECS during construction. In addition, existing utility lines, if located within proposed construction areas, may cause the new construction to behave unexpectedly due to the variable support conditions caused by old backfill.

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Furthermore, old backfill along utility lines also may provide inadequate support due to poor compaction. The poor support conditions may result in settlement or distress of the overlying new construction. Based on our experience, existing utility backfill rarely is suitable for support of new foundations. In slab areas, the load support characteristics of the backfill along utility lines typically can be assessed with careful proofrolling and subgrade evaluation during construction. Some undercutting and/or bridging of these backfill areas should be anticipated if utilities are present.

#### 5.1.2 Demolition

Site demolition should include the removal of existing asphalt, concrete curb and gutter, foundation systems, underground utilities and pipes from the proposed construction areas. Any underground utilities that may exist within the proposed building areas should be relocated, and any within proposed pavement areas should be evaluated by the design team and relocated or filled with grout, if necessary. The crushed stone on the ground surface in the existing pavement areas should be left in place in areas to be filled or can be excavated and re-used as compacted engineered fill. Excavations or cavities resulting from demolition should be backfilled with compacted structural backfill.

#### 5.1.3 Stripping and Grubbing

The subgrade preparation should consist of stripping all vegetation, rootmat, topsoil, existing fill, existing pavements and aggregate base, and any soft or unsuitable materials. We should be retained to verify that topsoil and unsuitable surficial materials have been removed prior to the placement of structural fill or construction of structures.

#### 5.1.4 Proofrolling

Prior to fill placement or other construction on subgrades, the subgrades should be evaluated by an ECS field technician. The exposed subgrade should be thoroughly proofrolled with construction equipment having a minimum axle load of 20 tons [e.g. fully loaded tandem-axle dump truck]. Proofrolling should be traversed in two perpendicular directions with overlapping passes of the vehicle under the observation of an ECS technician. This procedure is intended to assist in identifying any localized yielding materials.

Where proofrolling identifies areas that are unstable or “pumping” subgrade those areas should be repaired prior to the placement of any subsequent Structural Fill or other construction materials. Methods of stabilization include undercutting, moisture conditioning, or chemical stabilization. The situation should be discussed with ECS to determine the appropriate procedure. Test pits may be excavated to explore the shallow subsurface materials to help in determining the cause of the observed unstable materials, and to assist in the evaluation of appropriate remedial actions to stabilize the subgrade.

#### 5.1.5 Site Temporary Dewatering

**General Groundwater Conditions:** The depth at which groundwater is present on the site varies with surface elevation and subject to local groundwater wells. Soils at contact with groundwater levels were very moist to wet. Based on the assumed finished floor and shallow foundation elevations we anticipate localized dewatering for footings and utilities that extend more than 4 feet

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below existing ground surface. It is our opinion that localized dewatering can be achieved using sump pumps.

Note that discharge of produced groundwater to surface waters of the state from dewatering operations or other site activities is regulated and would require temporary dewatering permits from Broward County and the State of Florida Department of Environmental Protection (FDEP). This permit is termed a Generic Permit for the Discharge of Produced Groundwater from Any Non-Contaminated Site Activity. If discharge of produced groundwater is anticipated, we recommend sampling and testing of the groundwater early in the site design phase to prevent project delays during construction. ECS can provide the sampling, testing, and professional consulting required to evaluate compliance with the regulations.

#### 5.1.6 Compaction

**Subgrade Compaction:** Upon completion of subgrade documentation, the exposed subgrade within the ten-foot expanded building limit should be moisture conditioned to within +/- two percent of the soil's optimum moisture content and be compacted with suitable equipment (minimum ten-ton roller) to a depth of ten inches. Subgrade compaction within the expanded building and pavement limits should be to a dry density of at least 98 percent of the Modified Proctor maximum dry density (ASTM D1557). Beyond these areas, compaction of at least 95 percent should be achieved. ECS should be called on to document that proper subgrade compaction has been achieved.

**Subgrade Compaction Control:** The expanded limits of the proposed construction areas should be well defined, including the limits for buildings, fills, and slopes, etc. Field density testing of subgrades will be performed at frequencies in Table 5.1.6.1.

**Table 5.1.6.1 Frequency of Subgrade Compaction Testing**

Location	Frequency of Tests
Expanded Building Limits	One test per 2,000 sq. ft.
Pavement Areas	One test per 5,000 sq. ft.
Utility Trenches	One test per 200 linear ft.
All Other Non-Critical Areas	One test per 5,000 sq. ft.

**Subgrade Stabilization:** In some areas, particularly low-lying, wet areas of the site, undercutting of excessively soft materials may be considered inefficient. In such areas the use of a reinforcing geotextile or geogrid might be employed, under the advisement of ECS. Suitable stabilization materials may include medium duty woven geotextile fabrics or geogrids. The suitability and employment of reinforcing or stabilization products should be determined in the field by ECS personnel, in accordance with project specifications.

#### 5.2 STRUCTURAL FILL

Prior to placement of Structural Fill, representative bulk samples (about 50 pounds) of on-site and/or off-site borrow should be submitted to ECS for laboratory testing, which will typically include Atterberg limits, natural moisture content, grain-size distribution, and moisture-density relationships (i.e., Proctors) for compaction. Import materials should be tested prior to being

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hauled to the site to determine if they meet project specifications. Alternatively, Proctor data from other accredited laboratories can be submitted if the test results are within the last 90 days.

**Satisfactory Structural Fill Materials:** Materials satisfactory for use as Structural Fill should consist of inorganic soils with the following engineering properties and compaction requirements.

STRUCTURAL FILL INDEX PROPERTIES	
Subject	Property
Building and Pavement Areas	LL < 40, PI<6
Max. Particle Size	4 inches
Fines Content	Max. 25 % > #200 sieve
Max. organic content	5% by dry weight

STRUCTURAL FILL COMPACTION REQUIREMENTS	
Subject	Requirement
Compaction Standard	Modified Proctor, ASTM D1557
Required Compaction	98% of Max. Dry Density
Moisture Content	-2 to +3 % points of the soil's optimum value
Loose Thickness	8 inches prior to compaction

**Fill Placement: Asphalt should not be reused in Structural Fill soils.** Fill materials should not be placed on excessively wet soils. Excessively wet soils or aggregates should be scarified, aerated, and moisture conditioned. **The limerock base material is suitable to be reused as structural fill material.**

At the end of each workday, all fill areas should be graded to facilitate drainage of any precipitation and the surface should be sealed by use of a smooth-drum roller to limit infiltration of surface water. During placement and compaction of new fill at the beginning of each workday, the Contractor may need to scarify existing subgrades to a depth on the order of four inches so that a weak plane will not be formed between the new fill and the existing subgrade soils.

Drying and compaction of wet soils is typically difficult during the rainy season. Accordingly, earthwork should be performed during the drier times of the year, if practical. Proper drainage should be maintained during the earthwork phases of construction to prevent ponding of water which tends to degrade subgrade soils. Alternatively, if these soils cannot be stabilized by conventional methods as previously discussed, additional modifications to the subgrade soils such as cement stabilization may be utilized to adjust the moisture content. If cement is utilized to control moisture contents and/or for stabilization, regular Type 1 cement can be used. The construction testing laboratory should evaluate proposed cement soil modification procedures, such as quantity of additive and mixing and curing procedures before implementation. The contractor should be required to minimize dusting or implement dust control measures, as required.

Fill material should be placed in horizontal lifts in confined areas such as utility trenches, portable compaction equipment and thin lifts of three inches to four inches may be required to achieve specified degrees of compaction.

We recommend that the grading contractor have equipment on site during earthwork for both drying and wetting fill soils. We do not anticipate significant problems in controlling moisture within the fill during dry weather, but moisture control may be difficult during extended periods of rain.

### 5.3 FOUNDATIONS AND FLOOR SLABS

**Protection of Foundation Excavations:** Exposure to the environment may weaken the soils at the footing bearing level if the foundation excavations remain open for too long a time. Therefore, foundation concrete should be placed the same day that excavations are made. If the bearing soils are softened by surface water intrusion or exposure, the softened soils must be removed from the foundation excavation bottom immediately prior to placement of concrete. If the excavation must remain open overnight, or if rainfall becomes imminent while the bearing soils are exposed, a one to three-inch thick “mud mat” of “lean” concrete should be placed on the bearing soils before the placement of reinforcing steel.

**Footing Subgrade Observations:** After over-excavation of the deleterious organic soils, most of the soils at the foundation bearing elevation are anticipated to be suitable for support of the proposed structure. It is important to have ECS observe the foundation subgrade prior to placing foundation concrete; to confirm the bearing soils are what was anticipated.

**Slab Subgrade Verification:** Prior to placement of a drainage layer, the subgrade should be prepared in accordance with the recommendations found in Section 5.1.4 Proofrolling.

### 5.4 UTILITY INSTALLATIONS

**Utility Subgrades:** The soils encountered in our exploration are expected to be generally suitable for support of utility pipes. The pipe subgrades should be observed and probed for stability by ECS. Any loose or unsuitable materials encountered should be removed and replaced with suitable compacted structural fill, or pipe stone bedding material.

**Utility Backfilling:** The granular bedding material should be at least 4 inches thick, but not less than that specified by the civil engineer’s project drawings and specifications. We recommend that the bedding materials be placed up to the springline of the pipe. Fill placed for support of the utilities, as well as backfill over the utilities, should satisfy the requirements for Section 5.1 Subgrade Preparation and Section 5.2 Structural Fill.

**Temporary Dewatering:** Based on the assumed design grades, we anticipate localized dewatering for utilities extending deeper than 4 feet below existing grade surface. It is our opinion that localized dewatering can be achieved using sump pumps.

**Excavation Safety:** All excavations and slopes should be constructed and maintained in accordance with OSHA excavation safety standards. The contractor is solely responsible for designing, constructing, and maintaining stable temporary excavations and slopes. The contractor’s responsible person, as defined in 29 CFR Part 1926, should evaluate the soil exposed in the

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excavations as part of the contractor's safety procedures. In no case should slope height, slope inclination, or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations. ECS is providing this information solely as a service to our client. ECS is not assuming responsibility for construction site safety or the contractor's activities; such responsibility is not being implied and should not be inferred.

## **6.0 ADDITIONAL GEOTECHNICAL SERVICES**

Once final grades, building locations, pavement locations, and stormwater control measure locations have been determined, we recommend that additional soil test borings and laboratory testing be performed to develop final geotechnical design and construction recommendations.

## **7.0 CLOSING**

ECS has prepared this report to guide the geotechnical-related design and construction aspects of the project. We performed these services in accordance with the standard of care expected of professionals in the industry performing similar services on projects of like size and complexity at this time in the region. No other representation expressed or implied, and no warranty or guarantee is included or intended in this report.

The description of the proposed project is based on information provided to ECS by Bohler Engineering. If any of this information is inaccurate or changes, either because of our interpretation of the documents provided or site or design changes that may occur later, ECS should be contacted so we can review our recommendations and provide additional or alternate recommendations that reflect the proposed construction.

We recommend that ECS review the project plans and specifications so we can confirm that those plans/specifications are in accordance with the recommendations of this geotechnical report.

Field observations and quality assurance testing during earthwork and foundation installation are an extension of, and integral to, the geotechnical design. We recommend that ECS be retained to apply our expertise throughout the geotechnical phases of construction, and to provide consultation and recommendation should issues arise.

ECS is not responsible for the conclusions, opinions, or recommendations of others based on the data in this report.

## **APPENDIX A – Diagrams**

Site Location Diagram

Boring Location Diagram 3896

Boring Location Diagram 3970

Generalized Subsurface Profile A-A', B-B', C-C'

Flood Map

Soil Survey Map

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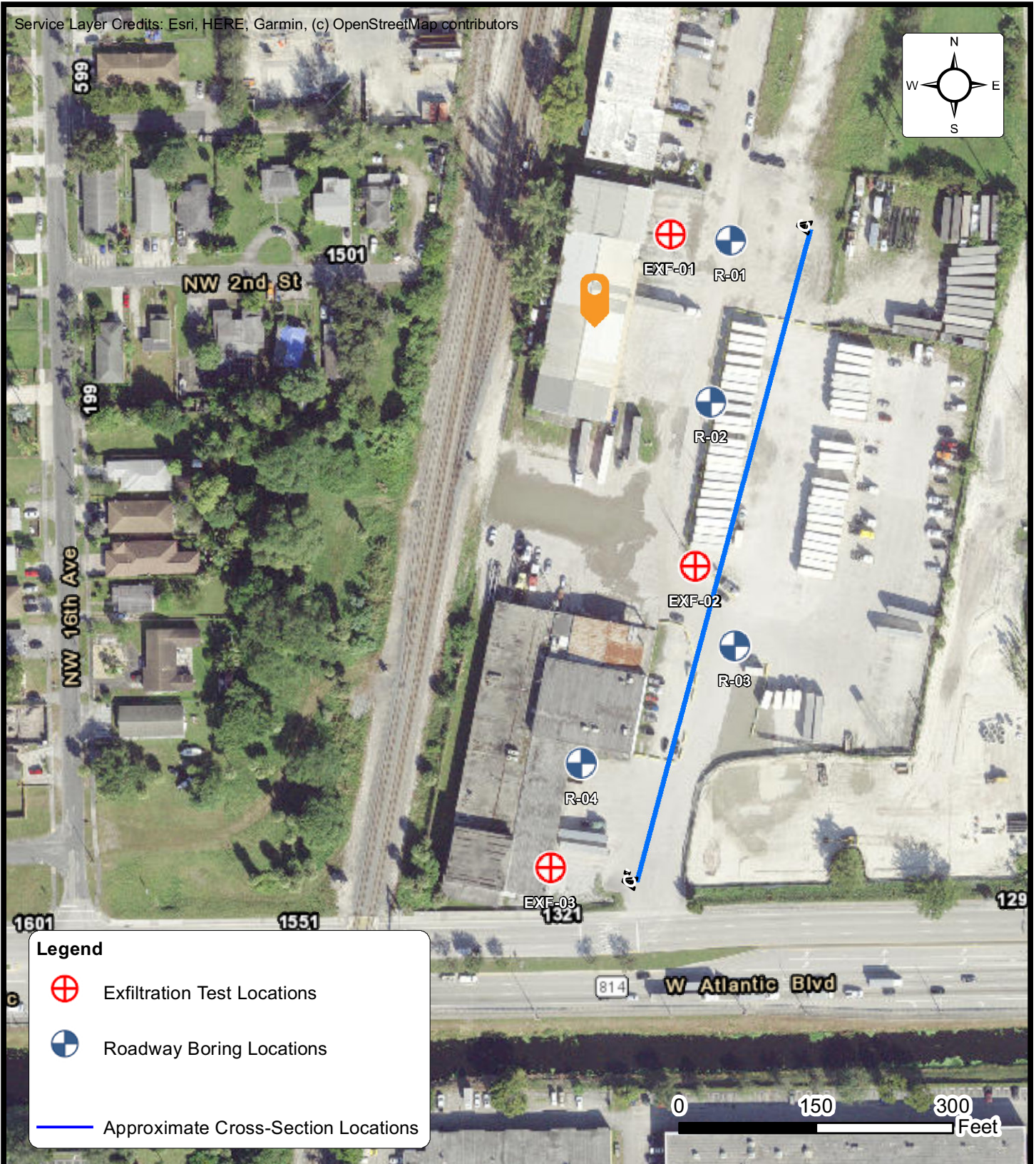
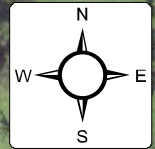




**BORING LOCATION DIAGRAM - 3896**  
**INDUSTRIAL DEVELOPMENT - POMPANO BEACH**  
**ATLANTIC BLVD AND ANDREWS AVE, POMPANO BEACH, FLORIDA**  
**BOHLER ENGINEERING**

ENGINEER	PROJECT NO.
SCALE	AS NOTED
PROJECT NO.	3896
SHEET	1 OF 1
DATE	4/26/2022





**Legend**

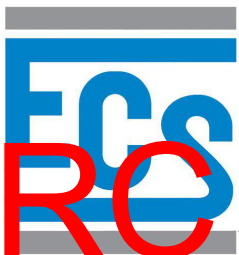


Exfiltration Test Locations



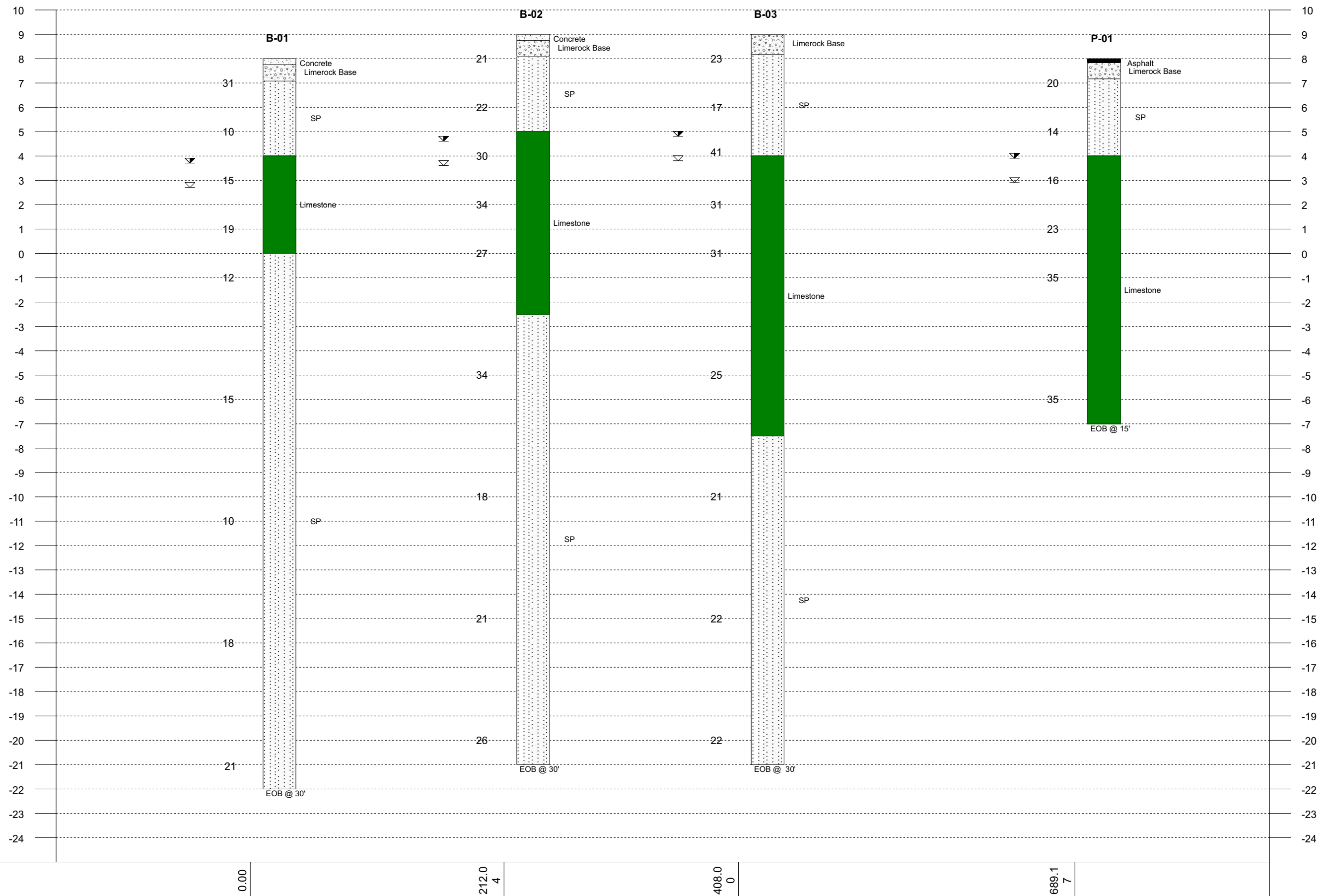
Roadway Boring Locations

— Approximate Cross-Section Locations



**BORING LOCATION DIAGRAM - 3970**  
**INDUSTRIAL SITE PARKING AREA - POMPANO BEACH**  
**1241 W. ATLANTIC BLVD, POMPANO BEACH, FLORIDA**  
**ALLIANCE WEST ATLANTIC, LLC**

ENGINEER  
JPH  
 SCALE  
AS NOTED  
 PROJECT NO.  
25:3970  
 DATE  
10/23/2022



Legend Key

- Concrete
- Limerock Base
- Poorly Graded SAND
- Asphalt
- Limestone

Notes:  
1- TO BOTTOM OF BORING. AR: AUGER REFUSAL. SR: SAMPLER REFUSAL.  
2- THE NUMBER BELOW THE STRIPS IS THE DISTANCE ALONG THE BASELINE.  
3- SEE INDIVIDUAL BORING LOG AND GEOTECHNICAL INFORMATION.  
4- STANDARD PENETRATION TEST RESISTANCE (LEFT OF BORING) IN BLOWS PER FOOT (ASTM D1586).

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Plastic Limit	Water Content	Liquid Limit
X	●	△
[FINES CONTENT%]		
BOTTOM OF CASING		
LOSS OF CIRCULATION		

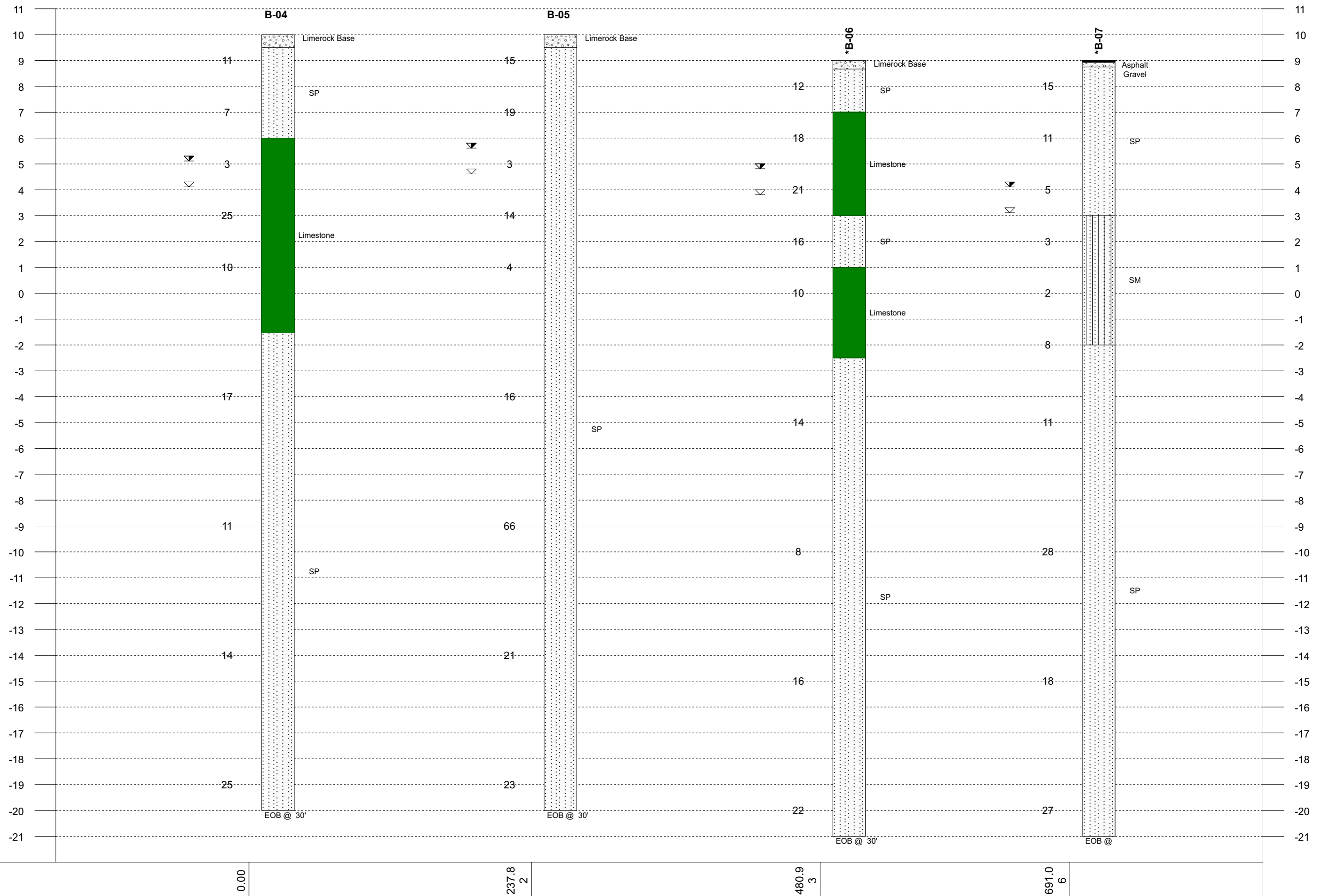
▽	WL (First Encountered)	Fill
▼	WL (Completion)	Possible Fill
▽	WL (Seasonal High Water)	Probable Fill
▽	WL (Stabilized)	Rock



GENERALIZED SURFACE SOIL PROFILE A-A'		
Industrial Development - Pompano Beach		
Bohler Engineering		
Atlantic Blvd and Andrews Ave, Pompano Beach, Florida 33069		
Project No:	25.3896	Date:

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Legend Key

- Gravel or Conglome... 1
- Poorly Graded SAND
- Asphalt
- Limestone
- SILTY SAND

Notes:  
1- TOB END OF BORING  
2- THE NUMBER BELOW THE STRIPS IS THE DISTANCE ALONG THE BASELINE.  
3- SEE INDIVIDUAL BORING LOG AND GEOTECHNICAL INFORMATION.  
4- STANDARD PENETRATION TEST RESISTANCE (LEFT OF BORING) IN BLOWS PER FOOT (ASTM D1586).

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Plastic Limit	Water Content	Liquid Limit
X	●	△
[FINES CONTENT%]		
BOTTOM OF CASING		
LOSS OF CIRCULATION		

▽	WL (First Encountered)
▼	WL (Completion)
▼	WL (Seasonal High Water)
▽	WL (Stabilized)

■	Fill
■	Possible Fill
■	Probable Fill
■	Rock



GENERALIZED SURFACE SOIL PROFILE B-B'

Industrial Development - Pompano Beach  
Bohler Engineering

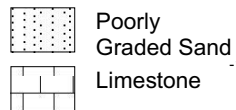
Atlantic Blvd and Andrews Ave, Pompano Beach, Florida 33069

Project No: 253896 Date: 04/25/2022

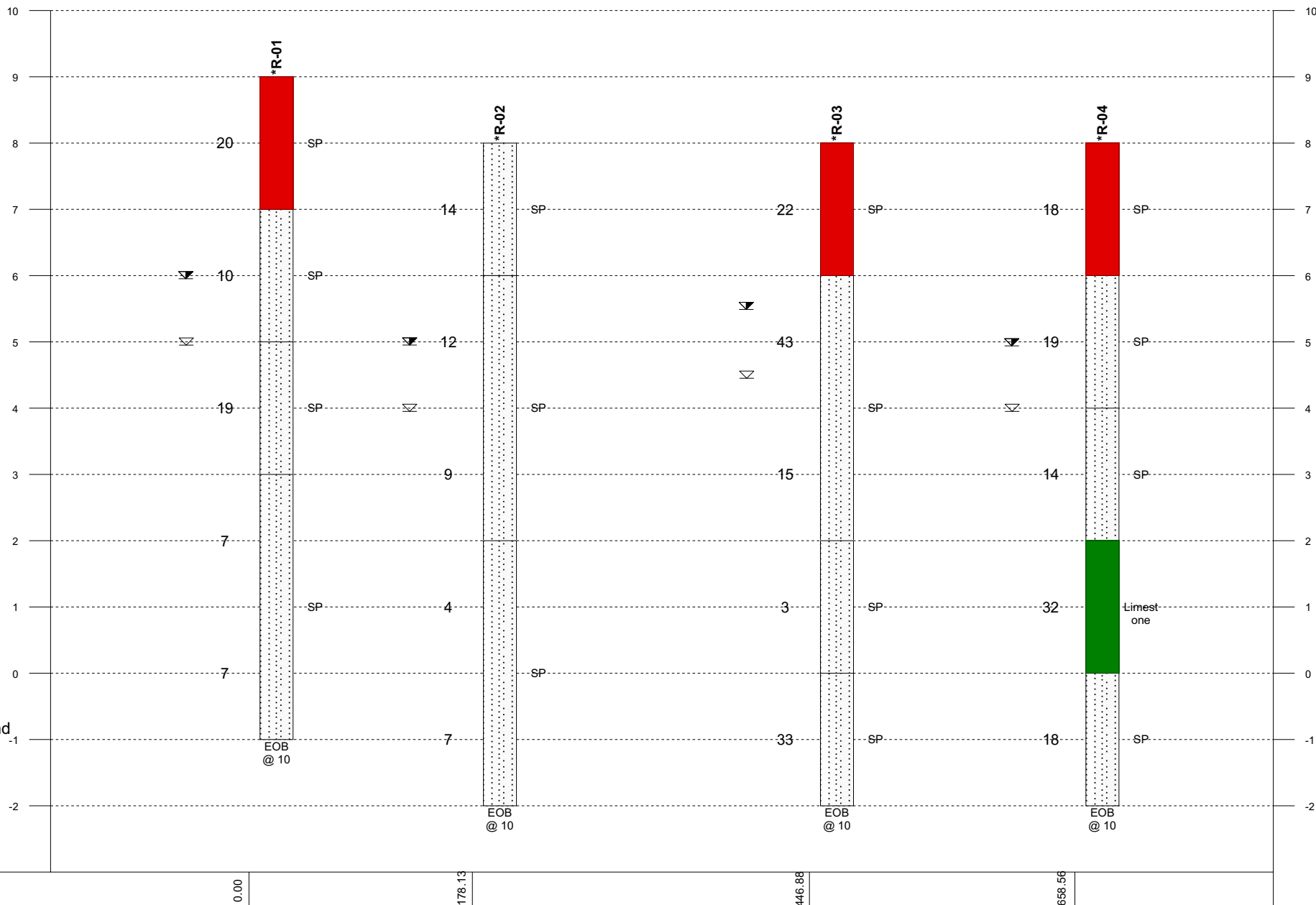
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Legend  
Key



-3.00



Notes:

- 1- JOB: END OF BORING
- 2- SR: SAMPLER REFUSAL
- 3- [FINES CONTENT%]
- 4- BOTTOM OF CASING

Plastic Limit	Water Content	Liquid Limit
X	●	△
[FINES CONTENT%]		
BOTTOM OF CASING		
100%		

WL (First Encountered)	Fill
WL (Completion)	Possible Fill
WL (Estimated Seasonal High Water)	Probable Fill
WL (Stabilized)	Rock

Fill
Possible Fill
Probable Fill
Rock

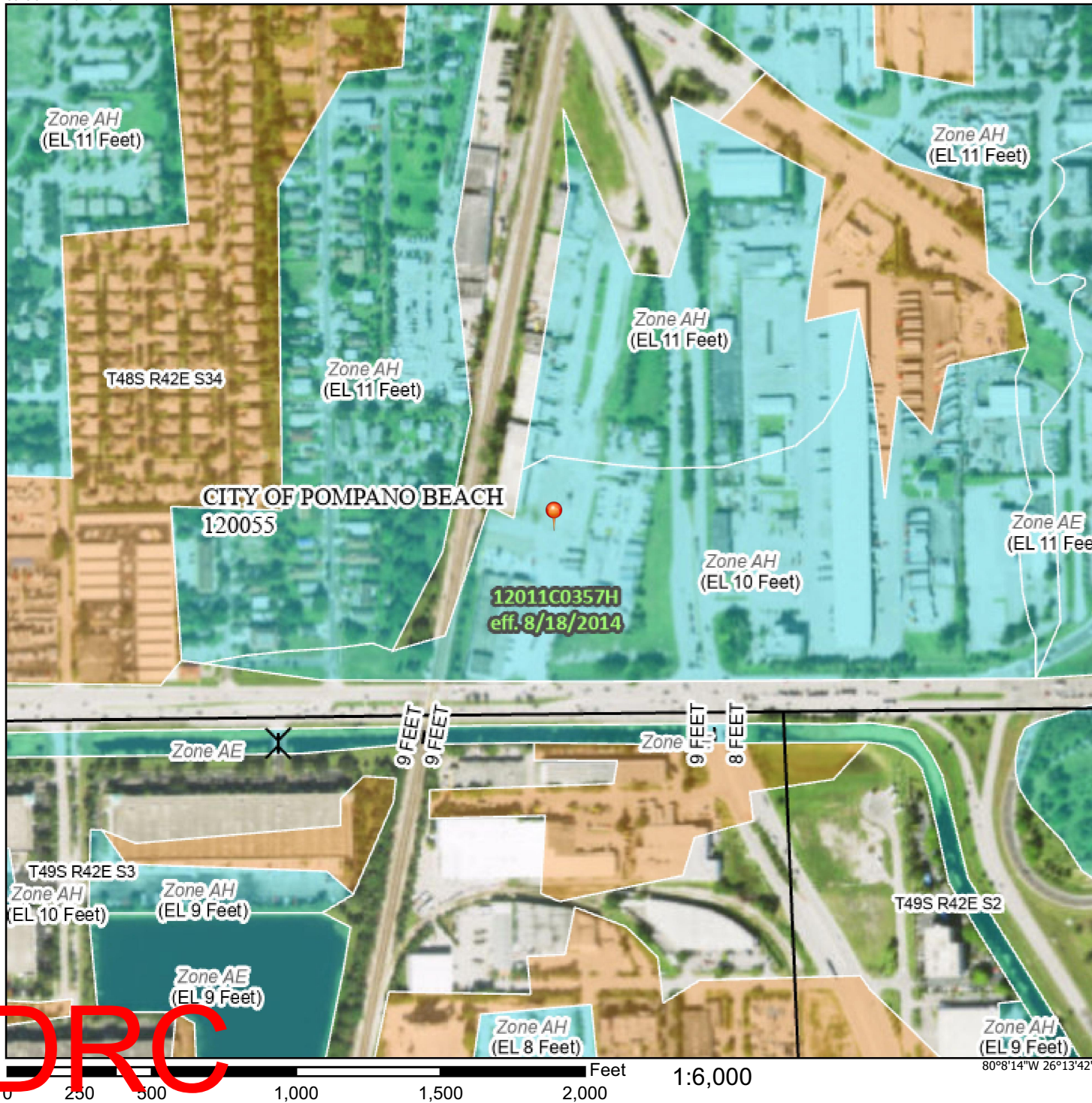
GENERALIZED SUBSURFACE SOIL PROFILE Section Line C-C'

Industrial Site Parking Area Pompano Beach	
Alliance West Atlantic LLC	
1241 W. Atlantic Blvd Pompano Beach, Florida, 33069	
Project No: 203970	Date: 10/28/2022

# National Flood Hazard Layer FIRMeTte



80°8'52"W 26°14'15"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/26/2022 at 2:31 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map is not suitable for one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, north arrow, community identifiers, FIRM panel numbers and effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

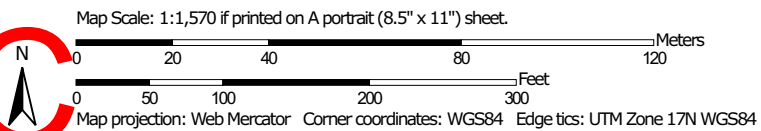
PZ23-12000007

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

PZ23-12000007




Soil Map—Broward County, Florida, East Part  
(Industrial Development - Pompano Beach)




## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

### Water Features



Streams and Canals

### Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

### Background



Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Broward County, Florida, East Part

Survey Area Data: Version 17, Aug 25, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 7, 2020—Mar 26, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
16	Immokalee, limestone substratum-Urban land complex	4.2	50.1%
40	Urban land, 0 to 2 percent slopes	4.2	49.9%
<b>Totals for Area of Interest</b>		<b>8.5</b>	<b>100.0%</b>

## **APPENDIX B – Field Operations**

Reference Notes for Boring Logs

Subsurface Exploration Procedure: Standard Penetration Testing (SPT)

Boring Logs

Exfiltration Test Results

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# REFERENCE NOTES FOR BORING LOGS

MATERIAL <sup>1,2</sup>	
	<b>ASPHALT</b>
	<b>CONCRETE</b>
	<b>GRAVEL</b>
	<b>TOPSOIL</b>
	<b>VOID</b>
	<b>BRICK</b>
	<b>AGGREGATE BASE COURSE</b>
	<b>GW WELL-GRADED GRAVEL</b> gravel-sand mixtures, little or no fines
	<b>GP POORLY-GRADED GRAVEL</b> gravel-sand mixtures, little or no fines
	<b>GM SILTY GRAVEL</b> gravel-sand-silt mixtures
	<b>GC CLAYEY GRAVEL</b> gravel-sand-clay mixtures
	<b>SW WELL-GRADED SAND</b> gravely sand, little or no fines
	<b>SP POORLY-GRADED SAND</b> gravely sand, little or no fines
	<b>SM SILTY SAND</b> sand-silt mixtures
	<b>SC CLAYEY SAND</b> sand-clay mixtures
	<b>ML SILT</b> non-plastic to medium plasticity
	<b>MH ELASTIC SILT</b> high plasticity
	<b>CL LEAN CLAY</b> low to medium plasticity
	<b>CH FAT CLAY</b> high plasticity
	<b>OL ORGANIC SILT or CLAY</b> non-plastic to low plasticity
	<b>OH ORGANIC SILT or CLAY</b> high plasticity
	<b>PT PEAT</b> highly organic soils

DRILLING SAMPLING SYMBOLS & ABBREVIATIONS			
SS	Split Spoon Sampler	PM	Pressuremeter Test
ST	Shelby Tube Sampler	RD	Rock Bit Drilling
WS	Wash Sample	RC	Rock Core, NX, BX, AX
BS	Bulk Sample of Cuttings	REC	Rock Sample Recovery %
PA	Power Auger (no sample)	RQD	Rock Quality Designation %
HSA	Hollow Stem Auger		

PARTICLE SIZE IDENTIFICATION		
DESIGNATION	PARTICLE SIZES	
Boulders	12 inches (300 mm) or larger	
Cobbles	3 inches to 12 inches (75 mm to 300 mm)	
Gravel: Coarse	¾ inch to 3 inches (19 mm to 75 mm)	
Fine	4.75 mm to 19 mm (No. 4 sieve to ¾ inch)	
Sand: Coarse	2.00 mm to 4.75 mm (No. 10 to No. 4 sieve)	
Medium	0.425 mm to 2.00 mm (No. 40 to No. 10 sieve)	
Fine	0.074 mm to 0.425 mm (No. 200 to No. 40 sieve)	
Silt & Clay ("Fines")	<0.074 mm (smaller than a No. 200 sieve)	

COHESIVE SILTS & CLAYS		
UNCONFINED COMPRESSIVE STRENGTH, QP <sup>4</sup>	SPT <sup>5</sup> (BPF)	CONSISTENCY <sup>7</sup> (COHESIVE)
<0.25	<2	Very Soft
0.25 - <0.50	2 - 4	Soft
0.50 - <1.00	5 - 8	Firm
1.00 - <2.00	9 - 15	Stiff
2.00 - <4.00	16 - 30	Very Stiff
4.00 - 8.00	31 - 50	Hard
>8.00	>50	Very Hard

RELATIVE AMOUNT <sup>7</sup>	COARSE GRAINED (%) <sup>8</sup>	FINE GRAINED (%) <sup>8</sup>
Trace	≤5	≤5
With	10 - 20	10 - 25
Adjective (ex: "Silty")	25 - 45	30 - 45

GRAVELS, SANDS & NON-COHESIVE SILTS	
SPT <sup>5</sup>	DENSITY
<5	Very Loose
5 - 10	Loose
11 - 30	Medium Dense
31 - 50	Dense
>50	Very Dense

WATER LEVELS <sup>6</sup>	
	WL (First Encountered)
	WL (Completion)
	WL (Seasonal High Water)
	WL (Stabilized)

FILL AND ROCK			
FILL	POSSIBLE FILL	PROBABLE FILL	ROCK

<sup>1</sup>Classifications and symbols per ASTM D 2488-17 (Visual-Manual Procedure) unless noted otherwise.

<sup>2</sup>To be consistent with general practice, "POORLY GRADED" has been removed from GP, GP-GM, GP-GC, SP, SP-SM, SP-SC soil types on the boring logs.

<sup>3</sup>Non-ASTM designations are included in soil descriptions and symbols along with ASTM symbol [Ex: (SM-FILL)].

<sup>4</sup>Typically estimated via pocket penetrometer or Torvane shear test and expressed in tons per square foot (tsf).

<sup>5</sup>Standard Penetration Test (SPT) refers to the number of hammer blows (blow count) of a 140 lb. hammer falling 30 inches on a 2 inch OD split spoon sampler required to drive the sampler 12 inches (ASTM D 1586). "N-value" is another term for "blow count" and is expressed in blows per foot (bpf). SPT correlations per 7.4.2 Method B and need to be corrected if using an auto hammer.

<sup>6</sup>The water levels are those levels actually measured in the borehole at the times indicated by the symbol. The measurements are relatively reliable when augering without adding fluids, in granular soils. In clay and cohesive silts, the determination of water levels may require several days for the water level to stabilize. In such cases, additional methods of measurement are generally employed.

<sup>7</sup>Minor deviation from ASTM D 2488-17 Note 14.

<sup>8</sup>Percentages are estimated to the nearest 5% per ASTM D 2488-17.





## SUBSURFACE EXPLORATION PROCEDURE: STANDARD PENETRATION TESTING (SPT) ASTM D 1586 Split-Barrel Sampling

Standard Penetration Testing, or **SPT**, is the most frequently used subsurface exploration test performed worldwide. This test provides samples for identification purposes, as well as a measure of penetration resistance, or N-value. The N-Value, or blow counts, when corrected and correlated, can approximate engineering properties of soils used for geotechnical design and engineering purposes.

### SPT Procedure:




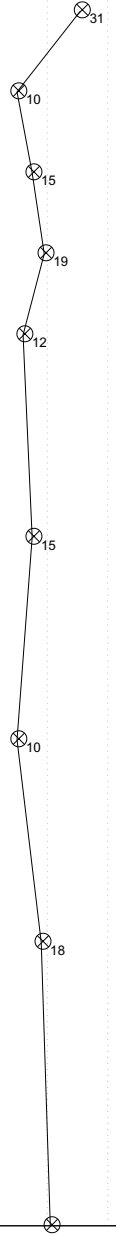
- Involves driving a hollow tube (split-spoon) into the ground by dropping a 140-lb hammer a height of 30-inches at desired depth
- Recording the number of hammer blows required to drive split-spoon a distance of 24 inches (in 3 or 4 Increments of 6 inches each)
- Auger is advanced\* and an additional SPT is performed
- One SPT test is typically performed for every two to five feet
- Obtain 1.5-inch diameter soil sample



*\*Drilling Methods May Vary—* The predominant drilling methods used for SPT are open hole fluid rotary drilling and hollow stem auger drilling.

DRC

DRC

CLIENT: <b>Bohler Engineering</b>				PROJECT NO.: <b>25:3896</b>		BORING NO.: <b>B-01</b>		SHEET: <b>1 of 2</b>		
PROJECT NAME: <b>Industrial Development - Pompano Beach</b>				DRILLER/CONTRACTOR: <b>J &amp; R Precision Drilling, Inc.</b>						
SITE LOCATION: <b>Atlantic Blvd and Andrews Ave, Pompano Beach, Florida 33069</b>										
NORTHING: <b>691542.9</b>				EASTING: <b>937239.8</b>		STATION:		SURFACE ELEVATION: <b>8</b>		LOSS OF CIRCULATION 
								BOTTOM OF CASING 		
DEPTH (FT)	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"	Plastic Limit   Water Content   Liquid Limit X ————— • ————— Δ ⊗ STANDARD PENETRATION BLOWS/FT ROCK QUALITY DESIGNATION & RECOVERY — RQD — REC ○ CALIBRATED PENETROMETER TON/SF [FINES CONTENT] %	
	S-1	SS	24	24	Concrete Thickness[3.00"]			35-17-14-16 (31)		
	S-2	SS	24	24	Limerock Base Thickness[8.00"] (SP) FINE SAND, brown and gray, moist, dense to loose			10-6-4-3 (10)		
5	S-3	SS	24	24	Silty Sandy LIMESTONE, light brown, moist to wet, soft, highly weathered		3	4-5-10-14 (15)		
	S-4	SS	24	24				27-13-6-4 (19)		
10	S-5	SS	24	24	(SP) FINE TO MEDIUM SAND, brown, wet, loose/ medium dense		-2	3-5-7-6 (12)		
15	S-6	SS	24	24			-7	7-6-9-9 (15)		
20	S-7	SS	24	24			-12	5-4-6-5 (10)		
25	S-8	SS	24	24			-17	6-10-8-7 (18)		
30	S-9	SS	24	24			-22	8-11-10-18 (21)		
END OF BORING AT 30 FT										
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL										
∇ WL (First Encountered) <b>5.20</b> ∇ WL (Completion) ∇ WL (Seasonal High Water) <b>4.20</b> ∇ WL (Stabilized)				BORING STARTED: <b>Apr 21 2022</b> BORING COMPLETED: <b>Apr 21 2022</b> EQUIPMENT: <b>Truck</b>		LOGGED BY: <b>BAH1</b>		CAVE IN DEPTH: HAMMER TYPE: <b>Auto</b> DRILLING METHOD: <b>Mud Rotary</b>		




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GEOTECHNICAL BOREHOLE LOG

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CLIENT: <b>Bohler Engineering</b>				PROJECT NO.: <b>25:3896</b>		BORING NO.: <b>B-02</b>		SHEET: <b>1 of 1</b>		
PROJECT NAME: <b>Industrial Development - Pompano Beach</b>				DRILLER/CONTRACTOR: <b>J &amp; R Precision Drilling, Inc.</b>						
SITE LOCATION: <b>Atlantic Blvd and Andrews Ave, Pompano Beach, Florida 33069</b>										LOSS OF CIRCULATION 
NORTHING: <b>691343.1</b>			EASTING: <b>937169.0</b>		STATION:		SURFACE ELEVATION: <b>9</b>		BOTTOM OF CASING 	
DEPTH (FT)	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"	Plastic Limit   Water Content   Liquid Limit X ————— • ————— Δ ⊗ STANDARD PENETRATION BLOWS/FT ROCK QUALITY DESIGNATION & RECOVERY — RQD — REC ○ CALIBRATED PENETROMETER TON/SF [FINES CONTENT] %	
	S-1	SS	24	24	Concrete Thickness[3.00"]			14-10-11-7 (21)	⊗ <sub>21</sub>	
	S-2	SS	24	24	Limerock Base Thickness[8.00"]			7-10-12-13 (22)	⊗ <sub>22</sub>	
5	S-3	SS	24	24	(SP) FINE SAND, trace limestone, light brown, moist, medium dense			11-12-18-29 (30)	⊗ <sub>30</sub>	
	S-4	SS	24	24	Silty Sandy Limestone, light brown, moist to wet, soft, highly weathered		4	13-22-12-14 (34)	⊗ <sub>34</sub>	
10	S-5	SS	24	24			-1	15-11-16-19 (27)	⊗ <sub>27</sub>	
					(SP) FINE TO MEDIUM SAND, brown, wet, dense to medium dense			12-14-20-16 (34)	⊗ <sub>34</sub>	
15	S-6	SS	24	24			-6	9-10-8-10 (18)	⊗ <sub>18</sub>	
20	S-7	SS	24	24			-11	7-10-11-13 (21)	⊗ <sub>21</sub>	
25	S-8	SS	24	24			-16	9-12-14-16 (26)	⊗ <sub>26</sub>	
30	S-9	SS	24	24			-21			
END OF BORING AT 30 FT										
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL										
WL (First Encountered) <b>5.30</b> WL (Completion) WL (Seasonal High Water) <b>4.30</b> WL (Stabilized)				BORING STARTED: <b>Apr 21 2022</b> BORING COMPLETED: <b>Apr 21 2022</b> EQUIPMENT: <b>Truck</b>		CAVE IN DEPTH: HAMMER TYPE: <b>Auto</b> DRILLING METHOD: <b>Mud Rotary</b>				




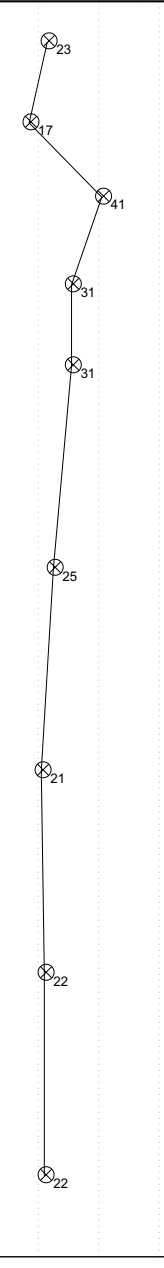
PZ23-12000007

GEOTECHNICAL BOREHOLE LOG

PZ23-12000007

08/16/2023

04/19/2023

CLIENT: <b>Bohler Engineering</b>				PROJECT NO.: <b>25:3896</b>		BORING NO.: <b>B-03</b>		SHEET: <b>1 of 1</b>			
PROJECT NAME: <b>Industrial Development - Pompano Beach</b>				DRILLER/CONTRACTOR: <b>J &amp; R Precision Drilling, Inc.</b>							
SITE LOCATION: <b>Atlantic Blvd and Andrews Ave, Pompano Beach, Florida 33069</b>										LOSS OF CIRCULATION 	
NORTHING: <b>691158.1</b>			EASTING: <b>937104.3</b>		STATION:		SURFACE ELEVATION: <b>9</b>		BOTTOM OF CASING 		
DEPTH (FT)	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"	Plastic Limit   Water Content   Liquid Limit X ————— ● ————— △ ⊗ STANDARD PENETRATION BLOWS/FT ROCK QUALITY DESIGNATION & RECOVERY — RQD — REC ○ CALIBRATED PENETROMETER TON/SF [FINES CONTENT] %		
	S-1	SS	24	24	Limerock Base Thickness[10.00"]			19-14-9-9 (23)			
	S-2	SS	24	24	(SP) FINE SAND, dark brown, moist, medium dense			8-9-8-6 (17)			
5	S-3	SS	20	20	Silty Sandy LIMESTONE, light brown, moist to wet, soft, highly weathered			3-5-36-50/2" (41)			
	S-4	SS	24	24				15-18-13-14 (31)			
	S-5	SS	24	24				12-16-15-15 (31)			
10											
	S-6	SS	24	24	(SP) FINE TO MEDIUM SAND, brown, wet, medium dense			13-10-15-16 (25)			
15											
	S-7	SS	24	24				9-10-11-9 (21)			
20											
	S-8	SS	24	24				8-12-10-11 (22)			
25											
	S-9	SS	24	24				13-10-12-15 (22)			
30					END OF BORING AT 30 FT						
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL											
WL (First Encountered) <b>5.10</b> WL (Completion) WL (Seasonal High Water) <b>4.10</b> WL (Stabilized)				BORING STARTED: <b>Apr 22 2022</b> BORING COMPLETED: <b>Apr 22 2022</b> EQUIPMENT: <b>Truck</b>		CAVE IN DEPTH: HAMMER TYPE: <b>Auto</b> DRILLING METHOD: <b>Mud Rotary</b>					




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GEOTECHNICAL BOREHOLE LOG

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CLIENT: <b>Bohler Engineering</b>				PROJECT NO.: <b>25:3896</b>		BORING NO.: <b>B-04</b>		SHEET: <b>1 of 1</b>		
PROJECT NAME: <b>Industrial Development - Pompano Beach</b>				DRILLER/CONTRACTOR: <b>J &amp; R Precision Drilling, Inc.</b>						
SITE LOCATION: <b>Atlantic Blvd and Andrews Ave, Pompano Beach, Florida 33069</b>										
NORTHING: <b>691550.2</b>				EASTING: <b>937418.3</b>		STATION:		SURFACE ELEVATION: <b>10</b>		LOSS OF CIRCULATION 
								BOTTOM OF CASING 		
DEPTH (FT)	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"	Plastic Limit   Water Content   Liquid Limit X ————— ● ————— Δ ⊗ STANDARD PENETRATION BLOWS/FT ROCK QUALITY DESIGNATION & RECOVERY — RQD — REC ○ CALIBRATED PENETROMETER TON/SF [FINES CONTENT] %	
	S-1	SS	24	24	Limerock Base Thickness[6.00"] (SP) FINE SAND, brown, moist, medium dense to loose			12-6-5-6 (11)	⊗ <sub>11</sub>	
	S-2	SS	24	24				6-4-3-2 (7)	⊗ <sub>7</sub>	
5	S-3	SS	24	24	Silty Sandy LIMESTONE, light brown, moist to wet, soft, highly weathered	↘	5	2-1-2-4 (3)	⊗ <sub>3</sub>	
	S-4	SS	24	24				4-13-12-6 (25)	⊗ <sub>25</sub>	
10	S-5	SS	24	24				8-5-5-6 (10)	⊗ <sub>10</sub>	
					(SP) FINE TO MEDIUM SAND, brown, wet, medium dense					
15	S-6	SS	24	24				6-8-9-10 (17)	⊗ <sub>17</sub>	
20	S-7	SS	24	24				4-4-7-8 (11)	⊗ <sub>11</sub>	
25	S-8	SS	24	24				5-7-7-9 (14)	⊗ <sub>14</sub>	
30	S-9	SS	24	24				6-12-13-19 (25)	⊗ <sub>25</sub>	
END OF BORING AT 30 FT										
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL										
∇ WL (First Encountered) <b>5.80</b>				BORING STARTED: <b>Apr 21 2022</b>				CAVE IN DEPTH:		
∇ WL (Completion)				BORING COMPLETED: <b>Apr 21 2022</b>				HAMMER TYPE: <b>Auto</b>		
∇ WL (Seasonal High Water) <b>4.80</b>				EQUIPMENT: <b>Truck</b>		LOGGED BY: <b>BAH1</b>		DRILLING METHOD: <b>Mud Rotary</b>		
∇ WL (Stabilized)										

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GEOTECHNICAL BOREHOLE LOG

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CLIENT: Bohler Engineering				PROJECT NO.: 25:3896		BORING NO.: B-05		SHEET: 1 of 1																
PROJECT NAME: Industrial Development - Pompano Beach				DRILLER/CONTRACTOR: J & R Precision Drilling, Inc.																				
SITE LOCATION: Atlantic Blvd and Andrews Ave, Pompano Beach, Florida 33069										LOSS OF CIRCULATION 														
NORTHING: 691342.0			EASTING: 937533.1			STATION:		SURFACE ELEVATION: 10		BOTTOM OF CASING 														
DEPTH (FT)	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"	Plastic Limit Water Content Liquid Limit X ————— ● ————— △															
									⊗ STANDARD PENETRATION BLOWS/FT ROCK QUALITY DESIGNATION & RECOVERY — RQD — REC															
									○ CALIBRATED PENETROMETER TON/SF [FINES CONTENT] %															
	S-1	SS	24	24	Limerock Base Thickness[6.00"] (SP) FINE TO MEDIUM SAND, trace limestone, brown, moist to wet, very loose/ very dense			6-6-9-8 (15)		15														
	S-2	SS	24	24				8-10-9-8 (19)				19												
5	S-3	SS	24	24				4-2-1-1 (3)						3										
	S-4	SS	24	24				2-6-8-9 (14)								14								
	S-5	SS	24	24				5-2-2-3 (4)										4						
10																				16				
	S-6	SS	24	24				5-9-7-10 (16)														66		
	S-7	SS	24	24				19-28-38-40 (66)																21
	S-8	SS	24	24				9-9-12-15 (21)																
25								23																
	S-9	SS	24	24		10-12-11-13 (23)				23														
30					END OF BORING AT 30 FT																			
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL																								
WL (First Encountered) 5.30				BORING STARTED: Apr 22 2022							CAVE IN DEPTH:													
WL (Completion)				BORING COMPLETED: Apr 22 2022							HAMMER TYPE: Auto													
WL (Seasonal High Water) 4.30				EQUIPMENT: Truck							LOGGED BY: BAH1													
WL (Stabilized)											DRILLING METHOD: Mud Rotary													
PZ23-12000007 GEOTECHNICAL BOREHOLE LOG PZ23-12000007																								
08/16/2023 04/19/2023																								

DRC

DRC



CLIENT: <b>Bohler Engineering</b>				PROJECT NO.: <b>25:3896</b>		BORING NO.: <b>B-06</b>		SHEET: <b>1 of 1</b>		
PROJECT NAME: <b>Industrial Development - Pompano Beach</b>				DRILLER/CONTRACTOR: <b>J &amp; R Precision Drilling, Inc.</b>						
SITE LOCATION: <b>Atlantic Blvd and Andrews Ave, Pompano Beach, Florida 33069</b>										
NORTHING: <b>691186.8</b>				EASTING: <b>937346.0</b>		STATION:		SURFACE ELEVATION: <b>9</b>		LOSS OF CIRCULATION 
								BOTTOM OF CASING 		
DEPTH (FT)	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"	Plastic Limit   Water Content   Liquid Limit X ————— ● ————— Δ ⊗ STANDARD PENETRATION BLOWS/FT ROCK QUALITY DESIGNATION & RECOVERY — RQD — REC ○ CALIBRATED PENETROMETER TON/SF [FINES CONTENT] %	
	S-1	SS	24	24	Limerock Base Thickness[4.00"] (SP) FINE SAND, brown, moist, medium dense			12-6-6-9 (12)	⊗ <sub>12</sub>	
	S-2	SS	24	24	Silty Sandy Limestone, light brown, moist to wet, soft, highly weathered			9-8-10-13 (18)	⊗ <sub>18</sub>	
5	S-3	SS	24	24				8-9-12-12 (21)	⊗ <sub>21</sub>	
	S-4	SS	24	24	(SP) FINE SAND, brown, wet, medium dense			9-11-5-4 (16)	⊗ <sub>16</sub>	
10	S-5	SS	24	24	Silty Sandy Limestone, light brown, wet, soft, highly weathered			7-5-5-7 (10)	⊗ <sub>10</sub>	
					(SP) FINE TO MEDIUM SAND, brown, wet, loose/ medium dense					
15	S-6	SS	24	24				5-7-7-10 (14)	⊗ <sub>14</sub>	
20	S-7	SS	24	24				5-4-4-5 (8)	⊗ <sub>8</sub>	
25	S-8	SS	24	24				6-7-9-12 (16)	⊗ <sub>16</sub>	
30	S-9	SS	24	24				8-10-12-14 (22)	⊗ <sub>22</sub>	
END OF BORING AT 30 FT										
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL										
∇ WL (First Encountered) <b>5.10</b>				BORING STARTED: <b>Apr 21 2022</b>				CAVE IN DEPTH:		
∇ WL (Completion)				BORING COMPLETED: <b>Apr 21 2022</b>				HAMMER TYPE: <b>Auto</b>		
∇ WL (Seasonal High Water) <b>4.10</b>				EQUIPMENT: <b>Truck</b>		LOGGED BY: <b>BAH1</b>		DRILLING METHOD: <b>Mud Rotary</b>		
∇ WL (Stabilized)										




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GEOTECHNICAL BOREHOLE LOG

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CLIENT: <b>Bohler Engineering</b>				PROJECT NO.: <b>25:3896</b>		BORING NO.: <b>B-07</b>		SHEET: <b>1 of 1</b>		
PROJECT NAME: <b>Industrial Development - Pompano Beach</b>				DRILLER/CONTRACTOR: <b>J &amp; R Precision Drilling, Inc.</b>						
SITE LOCATION: <b>Atlantic Blvd and Andrews Ave, Pompano Beach, Florida 33069</b>										
NORTHING: <b>691018.0</b>				EASTING: <b>937471.0</b>		STATION:		SURFACE ELEVATION: <b>9</b>		LOSS OF CIRCULATION 
								BOTTOM OF CASING 		
DEPTH (FT)	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"	Plastic Limit   Water Content   Liquid Limit X ————— ● ————— Δ ⊗ STANDARD PENETRATION BLOWS/FT ROCK QUALITY DESIGNATION & RECOVERY — RQD — REC ○ CALIBRATED PENETROMETER TON/SF [FINES CONTENT] %	
	S-1	SS	24	24	Asphalt Thickness[1.00"]			12-8-7-7 (15)	⊗ 15	
	S-2	SS	24	24	Limerock Base Thickness[2.00"]			5-5-6-6 (11)	⊗ 11	
5	S-3	SS	24	24	(SP) FINE TO MEDIUM SAND, brown, moist to wet, medium dense to loose		4	2-2-3-2 (5)	⊗ 5	
	S-4	SS	24	24	(SM) SILTY SAND, gray, wet, loose to very loose			1-1-2-2 (3)	⊗ 3	
10	S-5	SS	24	24				1-1-1-1 (2)	⊗ 2	
	S-6	SS	24	24	(SP) FINE TO MEDIUM SAND, brown, wet, loose to medium dense			1-3-5-6 (8)	⊗ 8	
15	S-7	SS	24	24				7-5-6-9 (11)	⊗ 11	
20	S-8	SS	24	24				15-16-12-14 (28)	⊗ 28	
25	S-9	SS	24	24				10-10-8-13 (18)	⊗ 18	
30	S-10	SS	24	24				9-15-12-13 (27)	⊗ 27	
END OF BORING AT 30 FT										
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL										
∇ WL (First Encountered) <b>5.80</b>				BORING STARTED: <b>Apr 22 2022</b>				CAVE IN DEPTH:		
∇ WL (Completion)				BORING COMPLETED: <b>Apr 22 2022</b>				HAMMER TYPE: <b>Auto</b>		
∇ WL (Seasonal High Water) <b>4.80</b>				EQUIPMENT: <b>Truck</b>				LOGGED BY: <b>BAH1</b>		
∇ WL (Stabilized)								DRILLING METHOD: <b>Mud Rotary</b>		




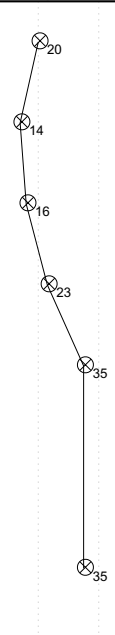
PZ23-12000007

GEOTECHNICAL BOREHOLE LOG

PZ23-12000007

08/16/2023

04/19/2023

CLIENT: <b>Bohler Engineering</b>				PROJECT NO.: <b>25:3896</b>		BORING NO.: <b>P-01</b>		SHEET: <b>1 of 1</b>		
PROJECT NAME: <b>Industrial Development - Pompano Beach</b>				DRILLER/CONTRACTOR: <b>J &amp; R Precision Drilling, Inc.</b>						
SITE LOCATION: <b>Atlantic Blvd and Andrews Ave, Pompano Beach, Florida 33069</b>										
NORTHING: <b>690879.7</b>		EASTING: <b>937064.8</b>		STATION:		SURFACE ELEVATION: <b>8</b>		LOSS OF CIRCULATION 		
								BOTTOM OF CASING 		
DEPTH (FT)	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"	Plastic Limit   Water Content   Liquid Limit X ————— ● ————— Δ ⊗ STANDARD PENETRATION BLOWS/FT ROCK QUALITY DESIGNATION & RECOVERY — RQD — REC ○ CALIBRATED PENETROMETER TON/SF [FINES CONTENT] %	
	S-1	SS	24	24	Asphalt Thickness[2.00"]			18-10-10-8 (20)		
	S-2	SS	24	24	Gravel Thickness[8.00"]			7-8-6-5 (14)		
	S-3	SS	24	24	(SP) FINE SAND, brown, moist, medium dense			4-7-9-10 (16)		
5	S-4	SS	24	24	Silty Sandy LIMESTONE, light brown, moist to wet, soft, highly weathered		3	9-13-10-12 (23)		
	S-5	SS	24	24				17-23-12-14 (35)		
10										
	S-6	SS	24	24				14-21-14-8 (35)		
15					END OF BORING AT 15 FT		-7			
20							-12			
25							-17			
30							-22			
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL										
∇ WL (First Encountered) <b>5.00</b>					BORING STARTED: <b>Apr 22 2022</b>		CAVE IN DEPTH:			
∇ WL (Completion)					BORING COMPLETED: <b>Apr 22 2022</b>		HAMMER TYPE: <b>Auto</b>			
∇ WL (Seasonal High Water) <b>4.00</b>					EQUIPMENT: <b>Truck</b>		DRILLING METHOD: <b>Mud Rotary</b>			
∇ WL (Stabilized)					LOGGED BY: <b>BAH1</b>					

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GEOTECHNICAL BOREHOLE LOG

PZ23-12000007

08/16/2023

04/19/2023

CLIENT: Alliance West Atlantic, LLC				PROJECT NO.: 25:3970		BORING NO.: R-01		SHEET: 1 of 1				
PROJECT NAME: Industrial Site Parking Area - Pompano Beach				DRILLER/CONTRACTOR: J & R Precision Drilling, Inc.								
SITE LOCATION: 1241 W. Atlantic Blvd, Pompano Beach, Florida, 33069								LOSS OF CIRCULATION 				
NORTHING: 691540.2		EASTING: 937279.3		STATION:		SURFACE ELEVATION: 9.00		BOTTOM OF CASING 				
DEPTH (FT)	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"	STANDARD PENETRATION BLOWS/FT		LIQUID LIMIT PLASTIC LIMIT	
									ROCK QUALITY DESIGNATION & RECOVERY		CALIBRATED PENETROMETER TSF	
									20 40 60 80 100		1 2 3 4 5	
									RQD REC		WATER CONTENT % [FINES CONTENT] %	
											10 20 30 40 50	
	S-01	SS	24	16	(SP FILL) FILL, FINE TO MEDIUM SAND, contains limerock fragments, brown to dark brown, moist, medium dense			20-12-8-10 (20)				
	S-02	SS	24	15	(SP) FINE SAND, dark brown to light gray, moist, loose			9-6-4-5 (10)				
5	S-03	SS	24	20	(SP) FINE SAND, contains limestone fragments, brown, wet, medium dense		4	3-4-15-15 (19)				
	S-04	SS	24	24	(SP) FINE SAND with cemented sand, brown, wet, loose			9-3-4-4 (7)				
	S-05	SS	24	24				WOH-3-4-7 (7)				
10	END OF BORING AT 10 FT						-1					
15							-6					
20							-11					
25							-16					
30							-21					
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL												
WL (First Encountered)		4.00		BORING STARTED:		Oct 24 2022		CAVE IN DEPTH:				
WL (Completion)				BORING COMPLETED:		Oct 24 2022		HAMMER TYPE: Auto				
WL (Seasonal High Water)		0.00		EQUIPMENT:		LOGGED BY:		DRILLING METHOD: Mud Rotary				
WL (Stabilized)				Truck		FLL1						

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GEOTECHNICAL BOREHOLE LOG

PZ23-12000007

08/16/2023

04/19/2023

CLIENT: Alliance West Atlantic, LLC				PROJECT NO.: 25:3970		BORING NO.: R-02		SHEET: 1 of 1				
PROJECT NAME: Industrial Site Parking Area - Pompano Beach				DRILLER/CONTRACTOR: J & R Precision Drilling, Inc.								
SITE LOCATION: 1241 W. Atlantic Blvd, Pompano Beach, Florida, 33069								LOSS OF CIRCULATION 				
NORTHING: 691363.4		EASTING: 937257.6		STATION:		SURFACE ELEVATION: 8.00		BOTTOM OF CASING 				
DEPTH (FT)	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"	STANDARD PENETRATION BLOWS/FT		LIQUID LIMIT PLASTIC LIMIT	
									ROCK QUALITY DESIGNATION & RECOVERY		CALIBRATED PENETROMETER TSF	
									20 40 60 80 100		1 2 3 4 5	
									RQD		WATER CONTENT % [FINES CONTENT] %	
									REC		10 20 30 40 50	
	S-01	SS	24	18	(SP) FINE SAND, dark brown to light gray, moist, medium dense			12-6-8-10 (14)				
	S-02	SS	24	16	(SP) FINE SAND, contains limestone fragments, brown, moist to wet, loose to medium dense			6-6-6-6 (12)				
5	S-03	SS	24	14			3	6-6-3-1 (9)				
	S-04	SS	24	19	(SP) FINE SAND, brown, wet, very loose to loose			2-2-2-2 (4)				
	S-05	SS	24	20				2-3-4-4 (7)				
10	END OF BORING AT 10 FT							-2				
15								-7				
20								-12				
25								-17				
30								-22				
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL												
WL (First Encountered)		4.00		BORING STARTED: Oct 24 2022		CAVE IN DEPTH:						
WL (Completion)				BORING COMPLETED: Oct 24 2022		HAMMER TYPE: Auto						
WL (Seasonal High Water)		2.00		EQUIPMENT: Truck		DRILLING METHOD: Mud Rotary						
WL (Stabilized)				LOGGED BY: FLL1								

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GEOTECHNICAL BOREHOLE LOG

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CLIENT: Alliance West Atlantic, LLC				PROJECT NO.: 25:3970		BORING NO.: R-03		SHEET: 1 of 1				
PROJECT NAME: Industrial Site Parking Area - Pompano Beach				DRILLER/CONTRACTOR: J & R Precision Drilling, Inc.								
SITE LOCATION: 1241 W. Atlantic Blvd, Pompano Beach, Florida, 33069								LOSS OF CIRCULATION 				
NORTHING: 691096.0		EASTING: 937284.0		STATION:		SURFACE ELEVATION: 8.00		BOTTOM OF CASING 				
DEPTH (FT)	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"	STANDARD PENETRATION BLOWS/FT		LIQUID LIMIT PLASTIC LIMIT	
									ROCK QUALITY DESIGNATION & RECOVERY		CALIBRATED PENETROMETER TSF	
	S-01	SS	24	14	(SP FILL) FILL, FINE TO MEDIUM SAND, contains limerock fragments, brown, moist, medium dense			20-14-8-12 (22)				
	S-02	SS	24	16	(SP) FINE SAND with cemented sand, brown, moist to wet, medium dense			14-20-23-22 (43)				
5	S-03	SS	24	16			3	15-10-5-3 (15)				
	S-04	SS	24	17	(SP) FINE SAND, brown, wet, very loose			1-1-2-4 (3)				
	S-05	SS	24	20	(SP) FINE SAND, contains limestone fragments, brown, wet, dense			3-15-18-22 (33)				
10	END OF BORING AT 10 FT						-2					
15							-7					
20							-12					
25							-17					
30							-22					
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL												
WL (First Encountered)		3.50		BORING STARTED: Oct 24 2022		CAVE IN DEPTH:						
WL (Completion)				BORING COMPLETED: Oct 24 2022		HAMMER TYPE: Auto						
WL (Seasonal High Water)		200		EQUIPMENT: Truck		DRILLING METHOD: Mud Rotary						
WL (Stabilized)				LOGGED BY: FLL1								



CLIENT: Alliance West Atlantic, LLC				PROJECT NO.: 25:3970		BORING NO.: R-04		SHEET: 1 of 1				
PROJECT NAME: Industrial Site Parking Area - Pompano Beach				DRILLER/CONTRACTOR: J & R Precision Drilling, Inc.								
SITE LOCATION: 1241 W. Atlantic Blvd, Pompano Beach, Florida, 33069								LOSS OF CIRCULATION 				
NORTHING: 690967.2		EASTING: 937116.0		STATION:		SURFACE ELEVATION: 8.00		BOTTOM OF CASING 				
DEPTH (FT)	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"	STANDARD PENETRATION BLOWS/FT		LIQUID LIMIT PLASTIC LIMIT	
									ROCK QUALITY DESIGNATION & RECOVERY		CALIBRATED PENETROMETER TSF	
									20 40 60 80 100	1 2 3 4 5		
									RQD		WATER CONTENT % [FINES CONTENT] %	
									REC		10 20 30 40 50	
	S-01	SS	24	16	(SP FILL) FILL, FINE TO MEDIUM SAND, contains limerock fragments, brown to dark brown, moist, medium dense		21-11-7-10 (18)					
	S-02	SS	24	14	(SP) FINE SAND, brown, moist, medium dense		9-10-9-8 (19)					
5	S-03	SS	24	18	(SP) FINE SAND, contains limestone fragments, brown, wet, medium dense		3-5-9-6 (14)					
	S-04	SS	24	19	LIMESTONE, Highly Weathered, Tan		7-24-8-14 (32)					
10	S-05	SS	24	14	(SP) FINE SAND, contains limestone fragments, brown, wet, medium dense		16-6-12-22 (18)					
	END OF BORING AT 10 FT											
15												
20												
25												
30												
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL												
WL (First Encountered) 4.00				BORING STARTED: Oct 24 2022				CAVE IN DEPTH:				
WL (Completion)				BORING COMPLETED: Oct 24 2022				HAMMER TYPE: Auto				
WL (Seasonal High Water) 2.00				EQUIPMENT: Truck				LOGGED BY: FLL1				
WL (Stabilized)								DRILLING METHOD: Mud Rotary				

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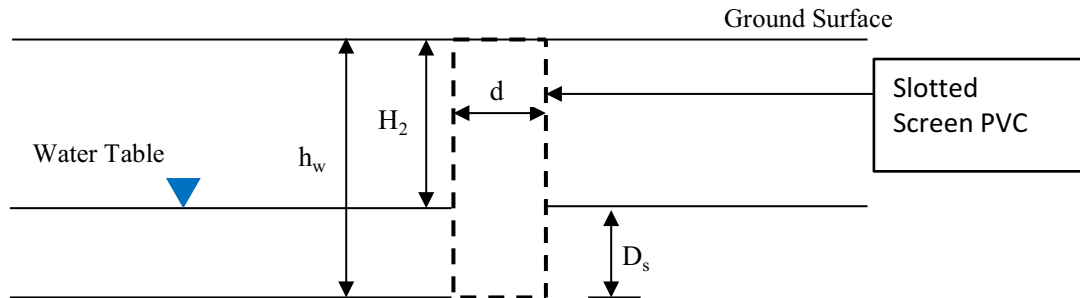
08/16/2023

GEOTECHNICAL BOREHOLE LOG

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04/19/2023

**SOUTH FLORIDA WATER MANAGEMENT DISTRICT  
" USUAL OPEN - HOLE TEST "**



$$K_{IV} = 4Q / [\pi d (2H_2^2 + 4H_2 D_s + H_2 d)]$$

**2.37E-04 CFS/FT<sup>2</sup>-FT HEAD**


Q = Average Flow Rate = 0.014192 CFS  
 d = Diameter of Test Hole = 0.50 feet  
 H<sub>2</sub> = Head on Water Table = 5.0 feet  
 h<sub>w</sub> = Total Hole Depth = 10.0 feet  
 D<sub>s</sub> = Saturated Hole Depth = 5.0 feet

TEST LOCATION : EXF-01 / P-01  
 DEPTH TO WATER TABLE : 5 ft Below Existing Grade  
 DEPTH OF TEST HOLE : 10 ft Below Existing Grade  
 AVERAGE FLOW RATE: 6.4 GPM

**SOIL PROFILE :**

0.0' - 4.0' Sand (SP)  
 4.0' - 10.0' Silty Sandy Limestone

NOTES: The soil profile is determined by drilled cuttings & should not be relied upon as an accurate record of soil type or for transition zones.

USUAL OPEN HOLE TEST SUMMARY		Test Date	Project No.	Test No.	Tested By	Checked by:
		04/22/22	3896	EXF-01	JP	BH
					<b>Job No.: 25:3896</b>	
					<b>Industrial Development - Pompano Beach</b> <b>Atlantic Blvd and Andrews Ave</b> <b>Pompano Beach, Florida 33069</b>	

**DRC**

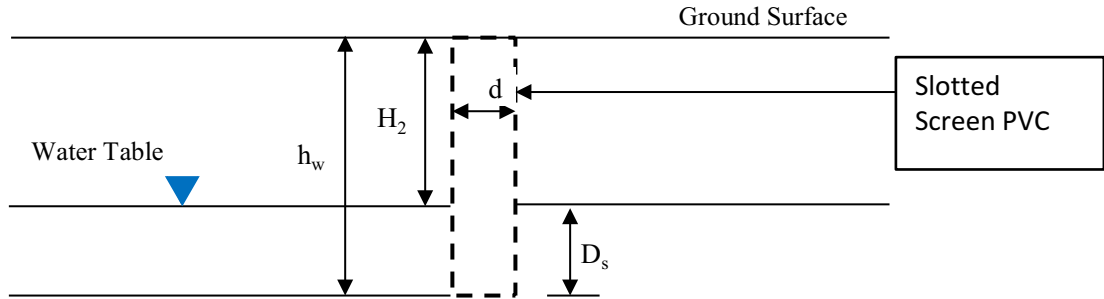
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**DRC**

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04/19/2023

# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

## " USUAL OPEN - HOLE TEST "



$$K_{IV} = 4Q / [\pi d (2H_2^2 + 4H_2D_s + H_2d)]$$

**9.68E-04 CFS/FT<sup>2</sup>-FT HEAD**

Q = Average Flow Rate = 0.037341 CFS

d = Diameter of Test Hole = 0.42 feet

H<sub>2</sub> = Head on Water Table = 3.5 feet

h<sub>w</sub> = Total Hole Depth = 10.0 feet


D<sub>s</sub> = Saturated Hole Depth = 6.5 feet

TEST LOCATION : EXF-01  
 DEPTH TO WATER TABLE : 3.5 ft Below Existing Grade  
 DEPTH OF TEST HOLE : 10 ft Below Existing Grade  
 AVERAGE FLOW RATE: 16.8 GPM

### SOIL PROFILE :

0.0 - 2.0 SAND with limestone  
 2.0 - 4.0 SAND  
 4.0 - 9.0 SAND with limestone  
 9.0 - 10.0 LIMESTONE with sand

NOTES: The soil profile is determined by drilled cuttings & should not be relied upon as an accurate record of soil type or for transition zones.

USUAL OPEN HOLE TEST SUMMARY		Test Date	Project No.	Test No.	Tested By	Checked by:
		10/24/22	25:3970	EXF-01	CC	JM
					Project Number: 25:3970	
					Industrial Site - Pompano Beach	
					1241 W. Atlantic Blvd. Pompano Beach, Broward County, FL	

# DRC

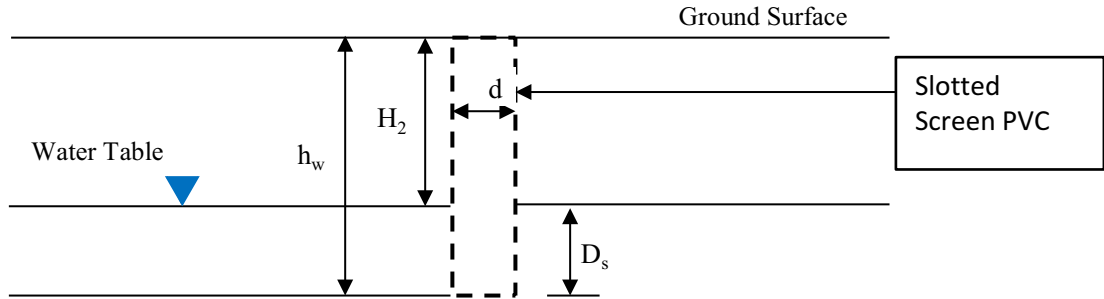
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04/19/2023

# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

## " USUAL OPEN - HOLE TEST "



$$K_{IV} = 4Q / [\pi d (2H_2^2 + 4H_2D_s + H_2d)]$$

**8.01E-04 CFS/FT<sup>2</sup>-FT HEAD**

Q = Average Flow Rate = 0.036161 CFS

d = Diameter of Test Hole = 0.42 feet

H<sub>2</sub> = Head on Water Table = 4.3 feet

h<sub>w</sub> = Total Hole Depth = 10.0 feet


D<sub>s</sub> = Saturated Hole Depth = 5.7 feet

TEST LOCATION : EXF-02  
 DEPTH TO WATER TABLE : 4.3 ft Below Existing Grade  
 DEPTH OF TEST HOLE : 10 ft Below Existing Grade  
 AVERAGE FLOW RATE: 16.2 GPM

### SOIL PROFILE :

0.0 - 2.0 SAND with limestone  
 2.0 - 4.0 SAND  
 4.0 - 9.0 SAND with limestone  
 9.0 - 10.0 LIMESTONE with sand

NOTES: The soil profile is determined by drilled cuttings & should not be relied upon as an accurate record of soil type or for transition zones.

USUAL OPEN HOLE TEST SUMMARY		Test Date	Project No.	Test No.	Tested By	Checked by:
		10/24/22	25:3970	EXF-02	CC	JM
					Project Number: 25:3970	
					Industrial Site - Pompano Beach	
					1241 W. Atlantic Blvd. Pompano Beach, Broward County, FL	

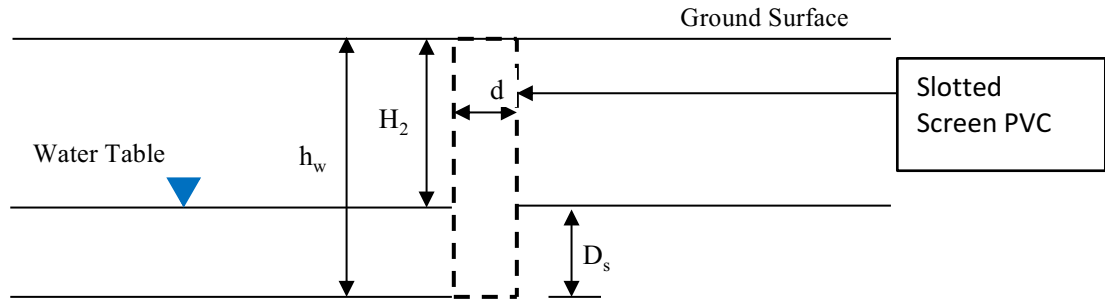
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04/19/2023

**SOUTH FLORIDA WATER MANAGEMENT DISTRICT  
" USUAL OPEN - HOLE TEST "**



$$K_{IV} = 4Q / [\pi d (2H_2^2 + 4H_2 D_s + H_2 d)]$$

**1.05E-03 CFS/FT<sup>2</sup>-FT HEAD**


Q = Average Flow Rate = 0.037765 CFS  
d = Diameter of Test Hole = 0.42 feet  
H<sub>2</sub> = Head on Water Table = 3.2 feet  
h<sub>w</sub> = Total Hole Depth = 10.0 feet  
D<sub>s</sub> = Saturated Hole Depth = 6.8 feet

TEST LOCATION : EXF-03  
DEPTH TO WATER TABLE : 3.2 ft Below Existing Grade  
DEPTH OF TEST HOLE : 10 ft Below Existing Grade  
AVERAGE FLOW RATE: 17.0 GPM

**SOIL PROFILE :**

0.0 - 2.0	SAND with limestone
2.0 - 4.0	SAND
4.0 - 9.0	SAND with limestone
9.0 - 10.0	LIMESTONE with sand

NOTES: The soil profile is determined by drilled cuttings & should not be relied upon as an accurate record of soil type or for transition zones.

USUAL OPEN HOLE TEST SUMMARY		Test Date	Project No.	Test No.	Tested By	Checked by:
		10/24/22	25:3970	EXF-03	CC	JM
					<b>Project Number: 25:3970</b>	
					<b>Industrial Site - Pompano Beach</b>	
					<b>1241 W. Atlantic Blvd.</b> <b>Pompano Beach, Broward County, FL</b>	

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04/19/2023



## **APPENDIX C – Supporting Documents**

Provided Environmental Documents Prepared by Others





P:\2021\FLB210100\CADD\DRAWINGS\EXHIBITS\FLB210100 - CPA - 1----->LAYOUT: C-301 - SITE PLAN

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PZ23-12000007  
08/16/2023

1900 NW CORPORATE BOULEVARD  
SUITE 101E  
BOCA RATON, FLORIDA 33431  
Phone: (561) 571-0280  
Fax: (561) 571-0281  
FLORIDA BUSINESS CERT. OF AUTH. No. 30780

PROPOSED CONCEPT

Alliance | HSP

ATLANTIC BLVD & ANDREWS AVE, POMPANO BEACH, FL | PLAN REV. 1

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PZ23-12000007  
04/19/2023

150 75 37.5 0  
1"=150'



This instrument prepared by:  
S & M Distribution Center Inc.  
P.O. Box 11209  
Pompano Beach, FL 33061

### DECLARATION OF RESTRICTIVE COVENANT

THIS DECLARATION OF RESTRICTIVE COVENANT (hereinafter "Declaration") is made this 20<sup>th</sup> day of June, 2005, by S & M Distribution Center, Inc., a corporation authorized to conduct business in the State of Florida (hereinafter GRANTOR) and the Broward County Environmental Protection Department (hereinafter "EPD").

### RECITALS

A. GRANTOR is the fee simple owner of that certain real property situated in the County of Broward, State of Florida, more particularly described in Exhibit "A" attached hereto and made a part thereof (hereinafter the "Property")

B. The EPD Facility Identification Number for the Property is 068734833. The facility name at the time of this Declaration is former Atlantic Lumber site;

C. The discharge of Arsenic on the Property is documented in the following reports that are incorporated by reference:

1. Site Assessment Report dated September 22, 2004, submitted by EPAC Environmental Services, Inc.; and
2. Site Assessment Report Addendum dated November 18, 2004, submitted by EPAC Environmental Services, Inc; and
3. No Further Actions with Conditions Approval dated February 9, 2005.

D. The reports noted in Recital C set forth the nature and extent of the contamination on the Property. These reports confirm that contaminated soil and/or groundwater as defined by Chapter 62-777, Florida Administrative Code, exists on the Property. Also, these reports document that the groundwater contamination does not extend off the Property that the extent of the groundwater

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contamination does not exceed 1/4 acre and the groundwater contamination is not migrating.

E. It is the intent of the restrictions in this declaration to reduce or eliminate the risk of exposure of the contaminants to the environment and to users or occupants of the property and to reduce or eliminate the threat of migration of the contaminants.

F. The EPD has agreed to issue a *No Further Actions with Conditions* (hereinafter "Order") upon recordation of this Declaration, and the EPD can unilaterally revoke the Order if the conditions of this Declaration or of the Order are not met. Additionally, in the event concentrations of *Arsenic* increase above the levels approved in the Order, or if a subsequent discharge occurs at the site, the EPD may require site rehabilitation to reduce concentrations of contamination to the levels allowed by the appropriate EPD rules. The Order relating to EPD Facility No. 068734833, is on file with the Broward County EPD mailing address: 115 South Andrews Avenue, Room A-240, Fort Lauderdale, Florida 33301

G. GRANTOR deems it desirable and in the best interest of all present and future owners of the Property that an Order be obtained and that the Property be held subject to certain restrictions and changes, all of which are more particularly hereinafter set forth.

NOW, THEREFORE, to induce the EPD to issue the Order and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by each of the undersigned parties, GRANTOR agrees as follows

1. The foregoing recitals are true and correct and are incorporated herein by reference.
2. GRANTOR hereby imposes on the Property the following restrictions:
  - a. There shall be no use of the groundwater on the Property. There shall be no drilling for water conducted on the Property nor shall any wells be installed on the Property other than monitoring wells pre-approved by the EPD. Additionally, there shall be no stormwater swales, stormwater detention or retention facilities or ditches on the Property. For any dewatering activities, a plan must be in place to address and ensure the appropriate handling, treatment, and disposal of any extracted ground water that may be contaminated.

- b. Excavation and construction below two feet surface elevations is not prohibited provided any contaminated soils that are excavated are removed and properly disposed of pursuant to Chapter 62-777, F.A.C. (or subsequent contamination site cleanup criteria rule(s)). Nothing herein shall limit or conflict with any other legal requirements regarding construction methods and techniques that must be taken to minimize risk of exposure while conducting work in contaminated areas. For any dewatering activities, a plan must be in place to address and ensure the appropriate handling, treatment, and disposal of any extracted ground water that may be contaminated.
- c. Generally, there shall be no agricultural use of the land including forestry, fishing and mining; no hotels or lodging; no recreational uses including amusement parks, parks, camps, museums, zoos, or gardens; no residential uses; and no educational uses such as elementary and secondary schools, or day care services. These prohibited uses are specifically defined by using the North American Industry Classification System, United States, 1997 (NAICS), Executive Office of the President, Office of Management and Budget. The prohibited uses by code are: Sector 11 Agriculture, Forestry, Fishing and Hunting; Subsection 212 Mining (except Oil and Gas); Code 512132 Drive-In Motion Picture Theaters; Code 51412 Libraries and Archives; Code 53111 Lessors of Residential Buildings and Dwellings; Subsector 611 Elementary and Secondary Schools; Subsector 623 Nursing and Residential Care Facilities; Subsector 624 Social Assistance; Subsector 711 Performing Arts, Spectator Sports and Related Industries; Subsector 712 Museums, Historical Sites, and Similar Institutions; Subsector 713 Amusement, Gambling, and Recreation Industries; Subsector 721 Accommodation (hotels, motels, RV parks, etc.); Subsector 813 Religious, Grantmaking, Civic, Professional, and Similar Organizations; and Subsection 814 Private Households.
3. For the purpose of monitoring the restrictions contained herein, EPD or its respective successors and assigns shall have site access to the Property at reasonable times and with reasonable notice to the GRANTOR.
4. It is the intention of GRANTOR that the restriction contained in this Declaration shall run with the land and with the title to the Property, and shall apply to and be binding upon and inure to the benefit of the

successors and assigns of GRANTOR, and to Broward County EPD, through its successors and assigns, and to any and all parties hereafter having any right, title or interest in the Property or any part thereof. The Department, its successors and assigns may enforce the terms and conditions of this Declaration by injunctive relief and other appropriate available legal remedies. Any forbearance on behalf of the Department to exercise its right in the event of the failure of the GRANTOR, its successors and assigns to comply with the provisions of this Declaration shall not be deemed or construed to be a waiver of the Department's rights hereunder. This Declaration shall continue in perpetuity, unless otherwise modified in writing by GRANTOR, its successors and assigns and the Broward County EPD, through its successors and assigns as provided in paragraph 6 hereof. These restrictions may also be enforced in a court of competent jurisdiction by any other person, firm, corporation, or governmental agency that is substantially benefited by this restriction.

5. In order to ensure the perpetual nature of these restrictions, GRANTOR, its successors and assigns, shall reference these restrictions in any subsequent deed of conveyance, including the recording book and page of record of this Declaration.
6. This Declaration is binding until a release of covenant is executed by Broward County and GRANTOR and is recorded in the county land records. To receive prior approval from EPD to remove any requirement herein cleanup target levels established pursuant to Florida Statutes and EPD rules must have been achieved. This Declaration may be modified in writing only. Any subsequent amendment must be executed by both the GRANTOR, its successors and assigns, and Broward County or their respective successors and assigns and be recorded by GRANTOR or its successors and assigns as an amendment hereto.
7. If any provision of this Declaration is held to be invalid by any court of competent jurisdiction, the invalidity of such provision shall not affect the validity of any other provisions thereof. All such other provisions shall continue unimpaired in full force and effect.
8. GRANTOR covenants and represents that on the date of execution of this Declaration that GRANTOR is seized of the Property in fee simple and has good right to create, establish, and impose this restrictive covenant on the use of the Property. GRANTOR also covenants and warrants that the Property is free and clear of any and all liens, mortgages, or encumbrances that could impair GRANTOR'S rights to impose the restrictive covenant described in this Declaration or that would be superior to the restrictive covenant described in this Declaration.

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08/16/2023

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PZ23-12000007  
04/19/2023



IN WITNESS WHEREOF, S & M Distribution Center, Inc. has executed this instrument, this 2nd day of JUNE, 2005.

Signed, sealed and delivered in the presence of:

Virginia Jennaro Of: S & M DISTRIBUTION CENTER, INC.  
Virginia Jennaro S & M Distribution Center, Inc.

Print Name: VIRGINIA JENARO Its: President  
President

P.O. Box 11209, Pompano Beach, Florida 33061

Shark Jennaro Date: 6/2/05  
Witness

Print Name: SHARK JENARO

Arthur J. Canter Date: 6/2/05  
Witness

Print Name: ARTHUR J. CANTER

STATE OF FLORIDA)

COUNTY OF PALM BEACH)

The foregoing instrument was acknowledged before me this 2nd day of JUNE, 2005, by VIRGINIA JENARO.

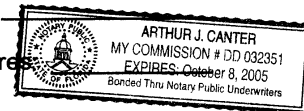
Personally Known X OR Produced Identification \_\_\_\_\_  
Type of Identification Produced \_\_\_\_\_

Arthur J. Canter  
Signature of Notary Public

ARTHUR J. CANTER  
Print Name of Notary Public

Commission No. \_\_\_\_\_

Commission Expires \_\_\_\_\_



DRC

PZ23-12000007  
08/16/2023

DRC

PZ23-12000007  
04/19/2023

IN WITNESS WHEREOF, the Florida Department of Environmental Protection has executed this instrument, this 20<sup>th</sup> day of June, 2005.

Signed, sealed and delivered in the presence of:

BROWARD COUNTY  
ENVIRONMENTAL PROTECTION  
DEPARTMENT

By: Jeffery D. Halsey

Print Name: Jeffery D. Halsey  
(Title) Director

Division of Pollution Prevention and Remediation

Mailing address: 115 South Andrews Avenue, Room A-240, Fort Lauderdale, Florida 33301

Witness: David VanLandingham Date: 06/20/05

Print Name: David VanLandingham

Witness: Lillian J. Jaramila Date: 6/20/05

Print Name: Lillian J. Jaramila

STATE OF Florida  
COUNTY OF Broward

The foregoing instrument was acknowledged before me this 20<sup>th</sup> day of June, 2005, by Jeffery Halsey as representative for the Broward County Environmental Protection Department.

Personally Known ☒ OR Produced Identification \_\_\_\_\_

Type of Identification Produced \_\_\_\_\_



OFFICIAL SEAL  
Jill Ryan  
D.D. #269399  
Commission Expires Nov. 23, 2007

Jill Ryan  
Signature of Notary Public

Print Name of Notary Public

Commission No. 269399

Commission Expires: 11/23/07

Approved as to form by the Office of  
County Attorney Broward County, Florida

JEFFREY J. NEWTON, County Attorney  
Government Center, Suite 423  
Fort Lauderdale, FL 33301  
Telephone (954)357-7600  
Telecopier (954) 357-6988

By: Naphine E. Jones 6/17/05  
Assistant County Attorney

DRC

PZ23-12000007  
08/16/2023

DRC

PZ23-12000007  
04/19/2023

**EXHIBIT A****LEGAL DESCRIPTION**

A parcel of land in the Southwest One-Quarter (SW 1/4) of the Southeast One-Quarter (SE 1/4) of Section 34, Township 48 South, Range 42 East, Broward County Florida as described as follows:

Commencing at a point on the centerline of Hammondville Road, and the centerline of the main track of the S.A.L. Railroad

Thence S 10° 46' 40" W, along the centerline of the main track of the S.A.L. Railroad, 1354.78 feet,

Thence S 79° 13' 20" E, 216.0 feet to the Point of Beginning of this Description;

Thence continue on the last described course S 79° 13' 20" E, 351.83 feet,

Thence S 10° 46' 40" W, parallel with the centerline of the maintrack of the S.A.L. Railroad, 610.00 feet,

Thence S 89° 01' 10" W, 229.76 feet,

Thence S 10° 46' 40" W, parallel with the centerline of the maintrack of the S.A.L. Railroad, 120.60 feet,

Thence S 88° 49' 12" W, 81.55 feet,

Thence N 10° 46' 40" E, parallel with the centerline of the maintrack of the S.A.L. Railroad, 316.10 feet,

Thence N 79° 13' 20" W, 22.15 feet,

Thence N 24° 49' 07" W, 42.95 feet,

Thence N 10° 46' 40" E, parallel with the centerline of the maintrack of the S.A.L. Railroad, 443.23 feet to the point of beginning, said land lying and being in the City of Pompano Beach, Florida, containing 227,046 square feet (5.21 acres) more or less.

**DRC**

PZ23-12000007  
08/16/2023

**DRC**

PZ23-12000007  
04/19/2023