ECS Florida, LLC

Geotechnical Engineering Report

Church Site Multi-Family

2466 First Street
Fort Myers, Lee County, Florida

ECS Project No. 60:1303-GP

January 29, 2021

ECS FLORIDA, LLC
"Setting the Standard for Service"
Geotechnical • Construction Materials • Environmental • Facilities

January 29, 2021

Mr. Adam Tucker
Zimmer Development Company, LLC
111 Princess Street
Wilmington, NC 28401

ECS Project No. 60:1303-GP

Reference: Geotechnical Engineering Report
Church Site Multi-Family
2466 First Street
Fort Myers, Lee County, Florida

Dear Mr. Tucker:

ECS Florida, LLC (ECS) has completed the subsurface exploration, laboratory testing, and geotechnical engineering analyses for the above-referenced project. Our services were performed in general accordance with ECS proposal 60:1097-GP (Rev. 1), dated November 9, 2020 and executed November 11, 2020. We previously explored the site and reported on our findings in ECS Report numbers 60:1008, and 60:1089 dated April 24, 2018 and February 28, 2019. This additional exploration was performed due to a change in building footprint and to refine our recommendations based on alternative testing data. This report presents our understanding of the geotechnical aspects of the project along with the results of the field exploration and laboratory testing conducted, and our design and construction recommendations.

It has been our pleasure to be of service to Zimmer Development Company, LLC. 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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EXECUTIVE SUMMARY

The following summarizes the main findings of the geotechnical exploration, particularly those that may have a cost impact on the planned development. Further, our foundation recommendations are summarized. Information gleaned from the Executive Summary should not be utilized in lieu of reading the entire geotechnical report.

- The proposed construction includes a 4-story multi-family building with a 5-story precast parking garage and related appurtenances. Based on phone conversations with you, a provided ALTA Survey dated January 7, 2019, and a site plan provided by Zimmer Development, we have assumed the maximum structural loading conditions will consist of column and wall loads on the order of 750 kips and 35 kips per linear foot (klf), respectively.

- It should be noted, two previous subsurface explorations were previously performed and reported on in 2018 and 2019. The 2018 exploration consisted of four SPT soil borings to depths ranging from 25 to 30 feet. The 2019 exploration consisted of four additional SPT borings to a depth on the order of 90 feet and five Cone Penetration Soundings (CPT) to depths ranging from 60 to 65 feet. These previous explorations were performed in the footprint of the proposed development and their approximate locations can be found in the Boring Location Diagram in Appendix A.

- As part of this geotechnical exploration, 2 Standard Penetration Test (SPT) borings and 2 Pressuremeter test soundings were performed within the project site as shown on the Boring Location Diagram in Appendix A. The exploration included 1 boring advanced to a depth of 50 feet below existing ground surface, referenced as D-1, 1 boring advanced to a depth of 25 feet below existing ground surface, referenced as E-1. In addition, the field exploration included 2 pressuremeter tests soundings, referenced as Pmrt-1 and Pmrt-2 and a percolation test in the footprint of the proposed stormwater vault, referenced as P-1.

- The proposed multi-family and garage structures may be supported on conventional shallow foundations consisting of column or strip footings bearing on natural soils with an allowable net bearing capacity of 6,000 psf. Details of the assumed foundation subgrade elevations and loads are contained in the body of the report.

1.0 INTRODUCTION

The purpose of this study was to provide geotechnical information for the design and construction of a 4-story multi-family apartment building, and a 5-story parking garage, and related appurtenances located in Fort Myers, Lee County, Florida.

Our services were provided in accordance with our Proposal No. 60:1097-GP, dated November 9, 2020 as authorized by Adam Tucker on November 11, 2020, which includes our Terms and Conditions of Service between ECS Florida, LLC and Zimmer Development Group, LLC.

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. Information on site conditions including surface drainage, geologic information, and special site features.
b. Description of the field exploration and laboratory tests performed.
c. Final log of the soil boring and records of the field exploration per the standard practice of geotechnical engineers. A site location plan will be included, and the results of the laboratory tests will be plotted on the final boring logs.
d. Evaluation of the on-site soil characteristics encountered in the soil borings. Further, we will discuss the suitability of the on-site materials for reuse as engineered fill. We will also include compaction requirements and suitable material guidelines.
e. Recommendations for foundation support based on provided loads.
f. Recommendations for soil supported slabs.
g. Recommendations for fill placement and subgrade preparations.
h. Discussion of stormwater management design parameters.
i. Recommendations for additional testing and/or consultation that might be required to complete the geotechnical assessment and related engineering for this project.

2.0 PROJECT INFORMATION

2.1 PROJECT LOCATION/CURRENT SITE USE/PAST SITE USE

The site is located on the southwest corner of First Street and Fowler Street in Fort Myers, Florida, as shown on Figure 2.1.1. Based on the available aerial photography and our field observations, the site has been previously developed as a church.

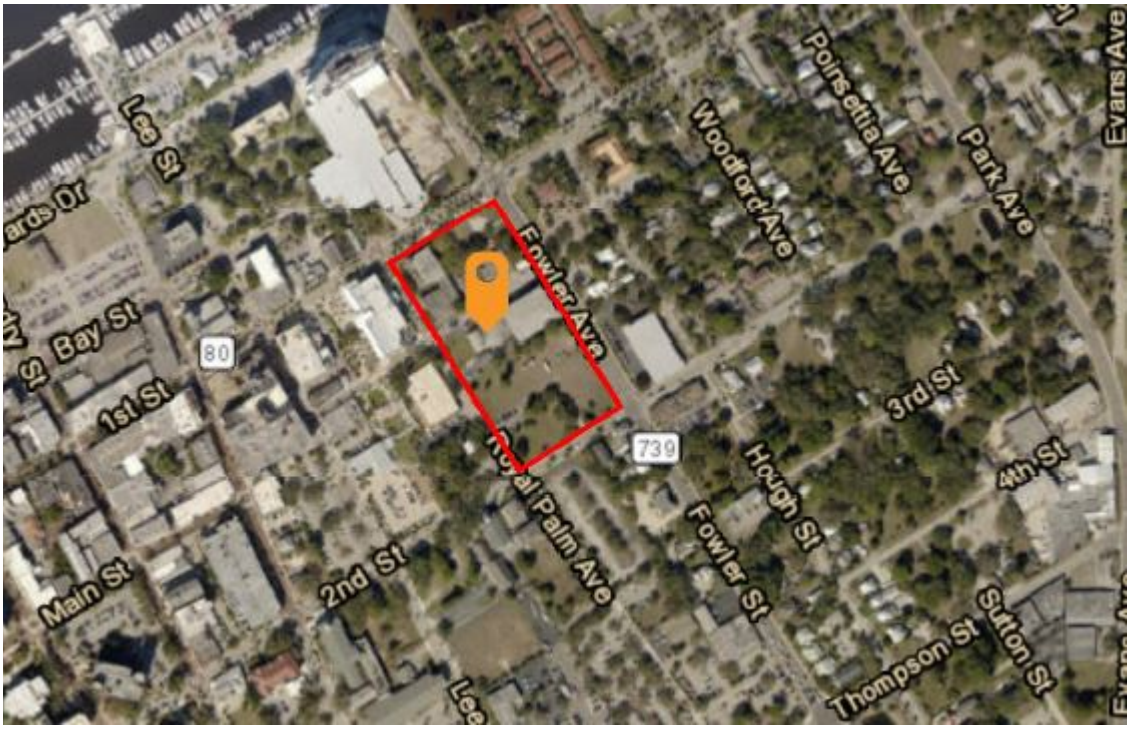


Figure 2.1.1. Site Location

The site is generally flat with a ground surface elevation of approximately EL. +7 to EL. +8 feet, based on interpolations from the provided ALTA survey, available topographic information, and our site visit. These elevations are approximate and should not be relied upon for design.

ECS reviewed aerial photographs of the subject property and immediate surrounding properties using Google Earth©. The aerial photographs reviewed were dated 1994, 1995, 1999, 2004 through 2008, 2010, 2012 through 2014, 2016, 2017, and 2019. It appears the site was developed prior to 1995 and the majority of the buildings were demolished in 2017. The remaining building was demolished between 2019 and the date of our exploration.

2.2 PROPOSED CONSTRUCTION

Based on the information provided to us, we understand that the project will consist of the design and construction of a 4-story multi-family apartment building, and a 5-story parking garage, and related appurtenances

Although final structural and grading information were not available at the time this report was prepared, we have assumed the maximum structural loading conditions will consist of column and wall loads on the order of 750 kips and 20 kips per linear foot (klf), respectively.

The following information on design values explains our understanding of the structures, based on conversations with your office regarding the planned structural elements and their assumed loads:

Table 2.2.1 Design Values

SUBJECT	PRELIMINARY DESIGN INFORMATION / EXPECTATIONS
Building Footprint	Approximately 100,000 SF
# of Stories	Four to Five
Usage	Residential
Construction	We anticipate that the proposed structural elements will be concrete masonry under wood truss roof
Column Loads(1)	Assumed, 750 kips (Full Dead and Factored Live) maximum
Wall Loads(1)	Assumed, 35 kips per linear foot (klf) maximum
Lowest Finish Floor Elevation(2)	Approximately EL. +8.0 ft. NAV88 (assumed)
Maximum Fill Level	Two feet above existing grade

(1) If assumed loads differ from final structural loads, ECS must be contacted to revise our settlement calculations and foundation design recommendations to update this report.
(2) Please note that the ground surface elevations were interpolated based on ALTA Survey. The elevations at boring locations are approximate and should not be relied upon for design.

3.0 FIELD EXPLORATION AND LABORATORY TESTING

The field exploration was planned with the objective of characterizing the project site in general geotechnical and geological terms and to evaluate subsequent field and laboratory data to assist in the determination of geotechnical and foundation recommendations.

It should be noted, two previous subsurface explorations were previously performed and reported on in 2018 and 2019. The 2018 exploration consisted of four SPT soil borings to depths ranging from 25 to 30 feet. The 2019 exploration consisted of four additional SPT borings to depths ranging from 80 to 90 feet and five Cone Penetration Soundings (CPT) to depths ranging from 60 to 65 feet. These previous explorations were performed in the footprint of the proposed development and their approximate locations can be found in the Boring Location Diagram in Appendix A.

As part of this geotechnical exploration, borings were performed within the proposed construction site as shown on the Boring Location Diagram. The exploration included 1 SPT borings advanced to a depth of 50 feet below existing ground surface, referenced as D-1 and one SPT boring advanced to a depth of 25 feet, referenced as E-1. In addition, the field exploration included 2 pressuremeter tests, referenced as Pmrt-1 and Pmrt-2 and one percolation test, referenced as P-1.

Boring and pressuremeter test locations were identified in the field by ECS personnel using GPS techniques or by taping from existing site features prior to mobilization of our drilling equipment. 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 Google Earth Pro™

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 shear strength and compressibility.

Pressuremeter tests (PMTs) were performed in two locations central to the overall site. Readings were taken at various depths from 8 to 24 feet. In the pressuremeter test, a radially expanding cylindrical probe is directly pushed into the soil. After insertion, the probe is expanded incrementally against the side of the hole with pressurized liquid. Each pressure increment is maintained until the readings stabilize. The pressure increments are continued until failure of the soil is reached. The change in diameter of each hole under each pressure increment is measured by the volume change in the center portion of the probe.

By plotting the probe volume versus pressure, a stress-volumetric strain curve is obtained. From this curve, two parameters are obtained for the computation of soil strength and compressibility. The first parameter is the limit pressure, Pl, which is defined as the pressure at which the soil reaches failure (the more asymptotic portion of the graph). A second parameter is the pressuremeter modulus, which is derived from the slope of the stress-volumetric strain curve in the elastic zone. The modulus of pressuremeter modulus is used to estimate settlements of the foundation system and other loaded areas. The limit pressure, Pl, is utilized in bearing capacity calculations. The pressuremeter test data is presented in Appendix B.

3.1 SUBSURFACE CHARACTERIZATION

The subsurface conditions encountered were generally consistent with our previous subsurface explorations in the area and published geological mapping. The table below includes the subsurface stratigraphy and general characteristics. The following sections provide generalized characterizations of the soil strata encountered during our subsurface exploration. For subsurface information at a specific location, refer to the Boring Logs in Appendix B.

Table 3.1.1 Generalized Subsurface Stratigraphy

Approximate Depth Range (ft)	Approximate Elevation Range (ft)	Stratum	Description	Ranges of SPT[(1)] N-values (bpf)
0-10	EL. +7 to EL. -3	I	(SP to SP-SM) Fine to Medium SAND, medium dense to very dense	9 to 12
4-13	EL. -3 to EL. -6	II	(PWR) PARTIALLY WEATHERED LIMESTONE, moderately hard to hard	50/5" to 55/1"
10-50	EL. -3 to EL. -47	III	(SM / SC) Fine to Medium Clayey/Silty SAND, loose to very loose	0 to 6

Notes: (1) Standard Penetration Test
(2) Please note that the ground surface elevations are based on Google Earth©. In addition, the elevations at boring locations are approximate and should not be relied upon for design.

3.2 GROUNDWATER OBSERVATIONS

Water levels were measured in our borings as noted on the soil boring logs in Appendix B. Groundwater was encountered at 4 to 5 feet below ground surface (bgs) in the borings at the time of drilling. Variations in the long-term water table may occur as a result of changes in precipitation, evaporation, tidal influence due to proximity to the river, surface water runoff, construction activities, and other factors. The groundwater will fluctuate seasonally depending upon local rainfall. The rainy season in Florida is normally between June and September, however we note the rainy season during 2020 appears to have extended into November. Based upon our site-specific field data, our review of the USDA Soils Survey of Lee County, the USGS topographic map of the area, published lake level data, the expected regional hydrogeology and our experience in the area, we estimate the seasonal high groundwater levels to be located at a depth of 2 to 3 feet bgs. The contractor should determine actual groundwater conditions prior to construction to evaluate their impact on the work.

3.3 LABORATORY TESTING

The laboratory testing performed by ECS for this project consisted of selected tests performed on samples obtained during our field exploration operations. Classification and soil property tests were performed on representative soil samples obtained from the test borings in order to aid in classifying soils according to the Unified Soil Classification System and to quantify and correlate engineering properties. Laboratory tests performed on selected samples included grain size analysis tests, and moisture content tests. The results of our laboratory testing program is located in Appendix C of this report.

An experienced geotechnical engineer visually classified each soil sample from the test borings on the basis of texture and plasticity in accordance with the Unified Soil Classification System (USCS) and ASTM D-2488 (Description and Identification of Soils-Visual/Manual Procedures). After classification, the geotechnical engineer grouped the various soil types into the major zones noted on the boring logs in Appendix B. The group symbols for each soil type are indicated in parentheses prior to the soil descriptions on the boring logs. The stratification lines designating the interfaces between earth materials on the boring logs are approximate; in situ, the transitions may be gradual.

4.0 DESIGN RECOMMENDATIONS

4.1 FOUNDATIONS

The recommendations presented in this report are based on the project information provided to us, the results of the soil test borings, laboratory testing, assumed structural loads, and the engineering analyses. Based on the SPT N-values from the borings, these soils were relatively compacted, did not appear to contain deleterious materials, and are suitable for use as a bearing stratum. Considering the results of our field exploration, and our experience with similar projects, it is our judgment that the site is suitable for the proposed development utilizing a shallow foundation system consisting of wall or column footings, provided the subgrade soils have been properly prepared and the recommendations herein are followed. We recommend the foundation design use the following parameters:

Table 4.1.1: Foundation Design Parameters

Design Parameter	Column Footing	Wall Footing
Net Allowable Bearing Pressure[(1)]	6,000 psf	6,000 psf
Acceptable Bearing Soil Material	Poorly graded SAND - Stratum I	Poorly graded SAND - Stratum I
Minimum Width	36 inches	24 inches
Minimum Footing Embedment Depth (below slab or finished grade) [(2)]	36 inches	36 inches
Estimated Total Settlement [(3)]	Less than 1 inch	Less than 1 inch
Estimated Differential Settlement [(4)]	Less than ½ inch between columns	Less than ½ inch over 50 feet

Notes:

(1) Net allowable bearing pressure is the applied pressure in excess of the surrounding overburden soils above the base of the foundation.
(2) For bearing considerations
(3) Based on assumed structural loads. If final loads are different, ECS must be contacted to update foundation recommendations and settlement calculations.
(4) Based on maximum column/wall loads and variability in borings. Differential settlement can be re- evaluated once the foundation plans are more complete.

Our settlement calculations assumes the soils from the bottom of the footings to a depth of one foot below the bottom of the footings have been compacted prior to placing concrete in the footings when placed on structural fill material, which is the case for this project that will have one foot of fill; if less height of fill material is placed we need to be contacted to reevaluate our settlement analysis. As such, we recommend this zone be compacted to at least 95% of the maximum dry density, as determined by the Modified Proctor Compaction Test (ASTM D-1557), and bearing capacity check for each footing to a depth of five feet underneath the footing with Dynamic Cone Penetrometer (DCP) within each spread footing footprint and every 50 linear feet for continuous footings.:

Potential Undercuts: Most of the soils at the foundation bearing elevation are anticipated to be suitable for support of the proposed structure. If soft or unsuitable soils are observed at the footing bearing elevations, the unsuitable soils should be undercut and removed. Any undercut

should be backfilled with lean concrete (f'c ≥ 1,000 psi at 28 days) or No. 57 stone, as applicable, up to the original design bottom of footing elevation; the original footing shall be constructed on top of the hardened lean concrete.

4.2 SLABS ON GRADE

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 the assumed lowest finished floor elevation is within two feet of the existing grade, it appears that the slabs will bear on Stratum I. The following graphic depicts our soil-supported slab recommendations:

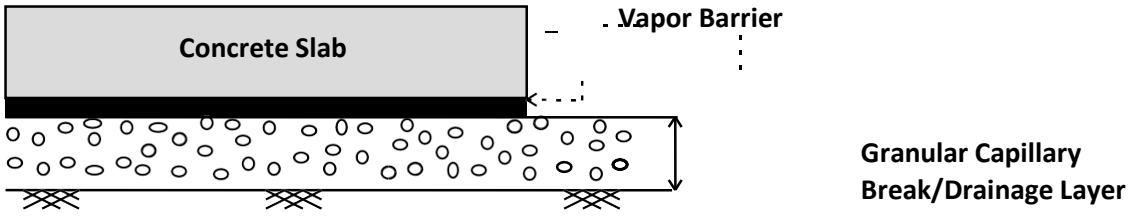


Figure 4.2.1

1. Drainage Layer Thickness: 4 inches
2. Drainage Layer Material: GRAVEL (GP, GW), SAND (SP, SW)

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.

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, k1 of 150 pci (lbs./cu. inch). The modulus of subgrade reaction value is based on a 1 ft by 1 ft 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.

4.3 PAVEMENT SECTIONS

General Recommendations: Our scope of services did not include extensive sampling and LBR testing of existing subgrade or potential sources of imported fill for the specific purpose of a detailed pavement analysis. Instead, we have assumed general pavement design parameters that are considered to be typical for the area soil types. The recommended pavement thicknesses presented in this report section are considered typical and minimum for the assumed parameters in the general site area. We understand that budgetary considerations sometimes warrant thinner pavement sections than those presented. However, the client, the owner, and the project designers should be aware that thinner pavement sections may result in increased maintenance costs and lower than anticipated pavement life. We recommend the following general pavement design sections included in the following Table 4.3.1.

Table 4.3.1: Pavement Structures Sections

	Asphalt		Concrete	
Component	**Standard**	**Heavy**	**Standard**	**Heavy**
Stabilized Subgrade	12”	12”	N/A	N/A
Base Course (Limerock)	6”	8”	N/A	N/A
Surface Course	1½”	2”	5”	6”
Maximum Joint Control Spacing	-	-	10’ x 10’	12’ x 12’
Recommended Sawcut Depth	-	-	1 ¼”	1 ½”

All pavement subgrades should be prepared in accordance with the recommendations presented in Section 5.1 Subgrade Preparation.

Perform compliance testing for the 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.

Effects of Groundwater: One of the most critical influences on the pavement performance in Southwest Florida is the relationship between the pavement subgrade elevation and the seasonal high groundwater level. Many roadways and parking areas have been destroyed as a result of deterioration of the base and the base/surface course bond. Regardless of the type of base selected, we recommend that the seasonal high groundwater and the bottom of the base course be separated by at least 12 inches for crushed concrete and 18 inches for limerock.

Groundwater levels and seasonal high groundwater levels may be affected by the proposed construction which will modify the surface and subsurface hydrology. It may be necessary to provide a permanent subsurface drainage system for some improvements to maintain the recommended separation between the water table and various structural elements in the building and pavement areas.

If construction is begun during wet weather, it is recommended the building and pavement subgrades not be disturbed. Dewatering efforts should begin prior to starting the grading operations. Fill and grading operations should be performed with a minimum disturbance to the surficial soils.

Landscape Drains and Curbing: If needed, where landscaped sections are located adjacent to

parking lots or driveways, we recommend that drains be installed around these landscaped sections to protect the asphalt pavement from excess rainfall and over irrigation. Migration of irrigation water from the landscape areas to the interface between the asphalt and the base usually occurs unless landscape drains are installed. The underdrains or strip drains should be routed to a positive outfall at the pavement area catch basins. It is recommended that curbing around landscaped sections adjacent to parking lots and driveways be constructed with full-depth curb sections. Using extended curb sections which lie directly on top of the final asphalt level, or eliminating curbing entirely, can allow migration of irrigation water from the landscaped areas to the interface between the asphalt and the base. This migration often causes separation of the wearing surface from the base and subsequent rippling and pavement deterioration.

4.4 STORMWATER MANAGEMENT DESIGN PARAMETERS

The following design parameters including hydraulic conductivity values and estimated seasonal high groundwater table have been established using assumed values, field, and laboratory testing:

Table 4.4.1 - Stormwater Management Design Parameters

Design Parameter	Recommended Values (Average of two borings)
Relevant Boring Logs	P-1 (B-2 previously performed)
Depth to Base of Surficial Aquifer (feet)	4 to 6
Fillable Porosity of Surficial in-situ Sands [SP] (%)	25
Estimated Seasonal High Groundwater Depth	2.5
Estimated Horizontal Saturated Hydraulic Conductivity of Surficial Sands [SP] (feet per day)	6.8
Measured Vertical Unsaturated Hydraulic Conductivity of Surficial Sands [SP, SC] (feet per day)	4.5

The measured vertical infiltration rate should not be construed to represent the actual stormwater management system exfiltration rate. For stormwater management design calculations, we recommend a factor of safety of 2 be applied to the above vertical infiltration rate value.

It should be noted, the depth to Base of Surficial Aquifer is close to ground surface due to shallow limestone , which may affect the vertical infiltration rates at the bottom of the exfiltration trenches.

The measured vertical infiltration rate should not be construed to represent the actual chamber exfiltration rate. For chamber design calculations, we recommend a factor of safety of 2 be applied to the above vertical infiltration rate value. All fill material used to bring the chambers to final grades should be clean, inorganic, granular soil (sand or gravel) with a fines content of no more than 12 percent. Care should be taken not to overcompact the exfiltration trench bottom during excavation and grading. The soil encountered at the site may be susceptible to overcompaction which can significantly decrease the infiltration capacity of the exfiltration system.

In addition, sediment control measures should be employed during the construction process to keep the stormwater management system from receiving significant amounts of stormwater runoff from the surrounding construction site. This runoff is likely to contain suspended fine-grained soil particles that can impede the infiltration capacity of the chambers if allowed to settle out on the trench bottoms. If dewatering effluent of stormwater runoff from the active construction site is discharged to the trench, we recommend scraping and removal of the fine-grained sediments that may have accumulated on the trench bottom.

5.0 SITE CONSTRUCTION RECOMMENDATIONS

5.1 SUBGRADE PREPARATION

5.1.1 Stripping and Grubbing

Stripping soft or unsuitable material from the foundation areas should also be performed. Unsuitable material consists of soils with more than five percent organics content or more than 12 percent passing the No. 200 sieve. ECS should be called to verify that topsoil and unsuitable surficial materials (including existing pavements) have been completely removed prior to the placement of Structural Fill or construction of structures.

5.1.2 Subgrade Compaction

Upon completion of subgrade documentation, the exposed subgrade within the five-foot expanded foundation limits should be moisture conditioned to within -one and +three percent of the soil's optimum moisture content and be compacted with suitable equipment (roller with minimum weight of 20-tons and width of six feet) to a depth of 12 inches. Subgrade compaction within the expanded building and pavement limits should be to a dry density of at least 95 percent of the Modified Proctor maximum dry density (ASTM D1557). ECS should be called on to document that proper subgrade compaction has been achieved.

The expanded limits of the proposed construction areas should be well defined, including the limits for buildings, pavements, fills, and slopes, etc. Field density testing of subgrades should be performed at frequencies of one test per lift.

5.1.3 Site Temporary Dewatering

Should groundwater control measures become necessary, dewatering methods should be determined by the contractor. We recommend the groundwater control measures, if necessary, remain in place until compaction of the existing soils is completed. The dewatering method should be maintained until backfilling has reached a height of two feet above the groundwater level at the time of construction. The site should be graded to direct surface water runoff from the construction area.

Note that discharge of produced groundwater to surface waters of the state from dewatering operations or other site activities is regulated and requires a permit from 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.

5.2 EARTHWORK OPERATIONS

5.2.1 Structural Fill

Import materials should typically be tested prior to being 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**
Foundation	LL < 40, PI<20
Max. Particle Size	4 inches
Fines Content (% passing 200 sieve)	Max. 20 %
Max. organic content	5% by dry weight

STRUCTURAL FILL COMPACTION REQUIREMENTS	
Subject	**Requirement**
Compaction Standard	Modified Proctor, ASTM D1557
Required Compaction	95% of Max. Dry Density
Moisture Content	-2 to +3 % points of the soil's optimum value
Loose Thickness	12 inches prior to compaction

5.3 FOUNDATION OBSERVATIONS

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. 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: Most of the soils at the foundation bearing elevation are anticipated to be suitable for support of the proposed structures. Therefore, the footings will most likely bear on compacted native soils. It is important for the footings to be tested for density and verified for capacity prior to placement of foundation concrete. If loose or uncompacted soils are observed at the footing bearing elevations, the soils should be recompacted.

6.0 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 the client. 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.

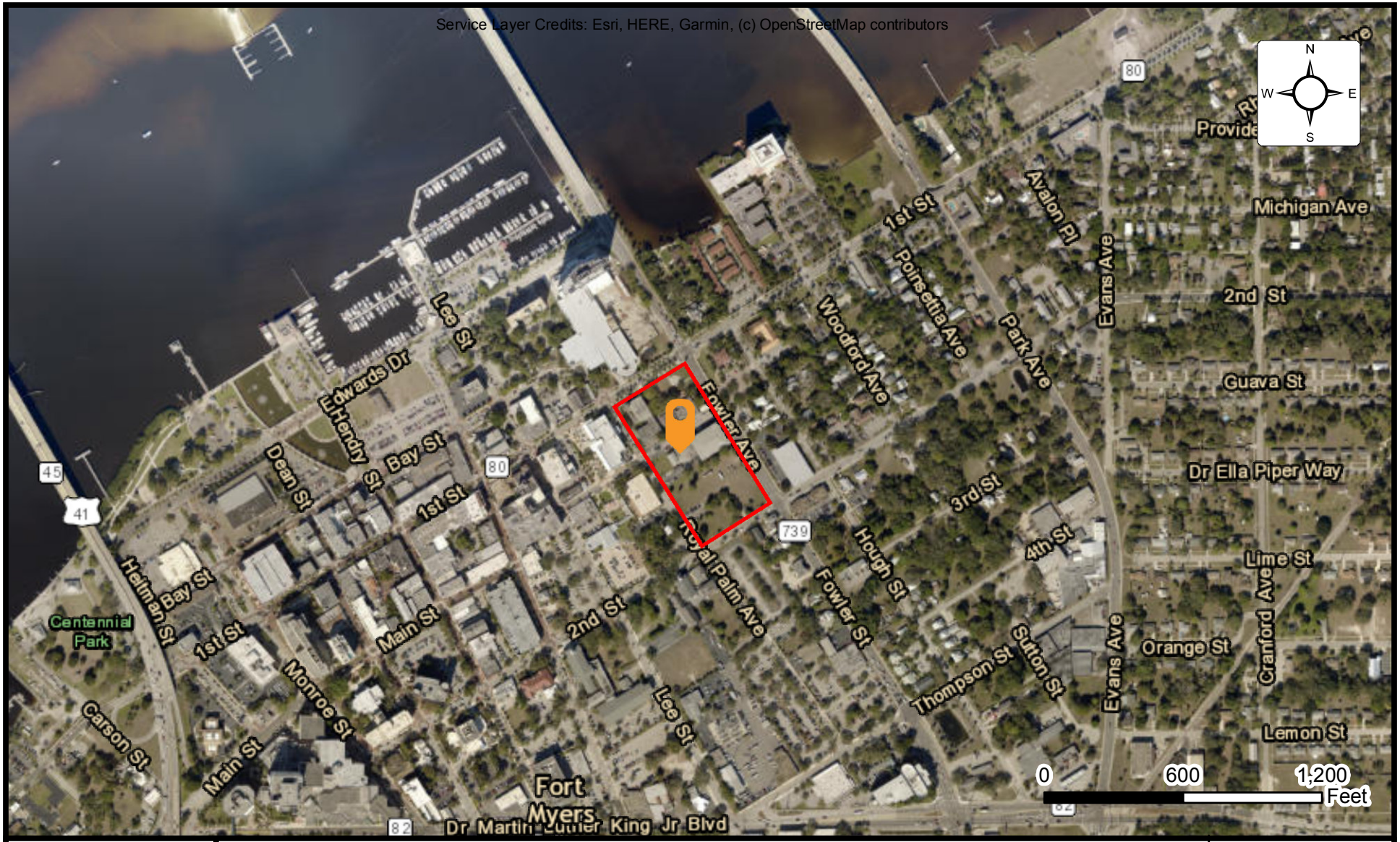
We recommend that ECS review the project plans and specifications so we can confirm that those plans/specifications are in accordance with the recommendations of this geotechnical report.

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

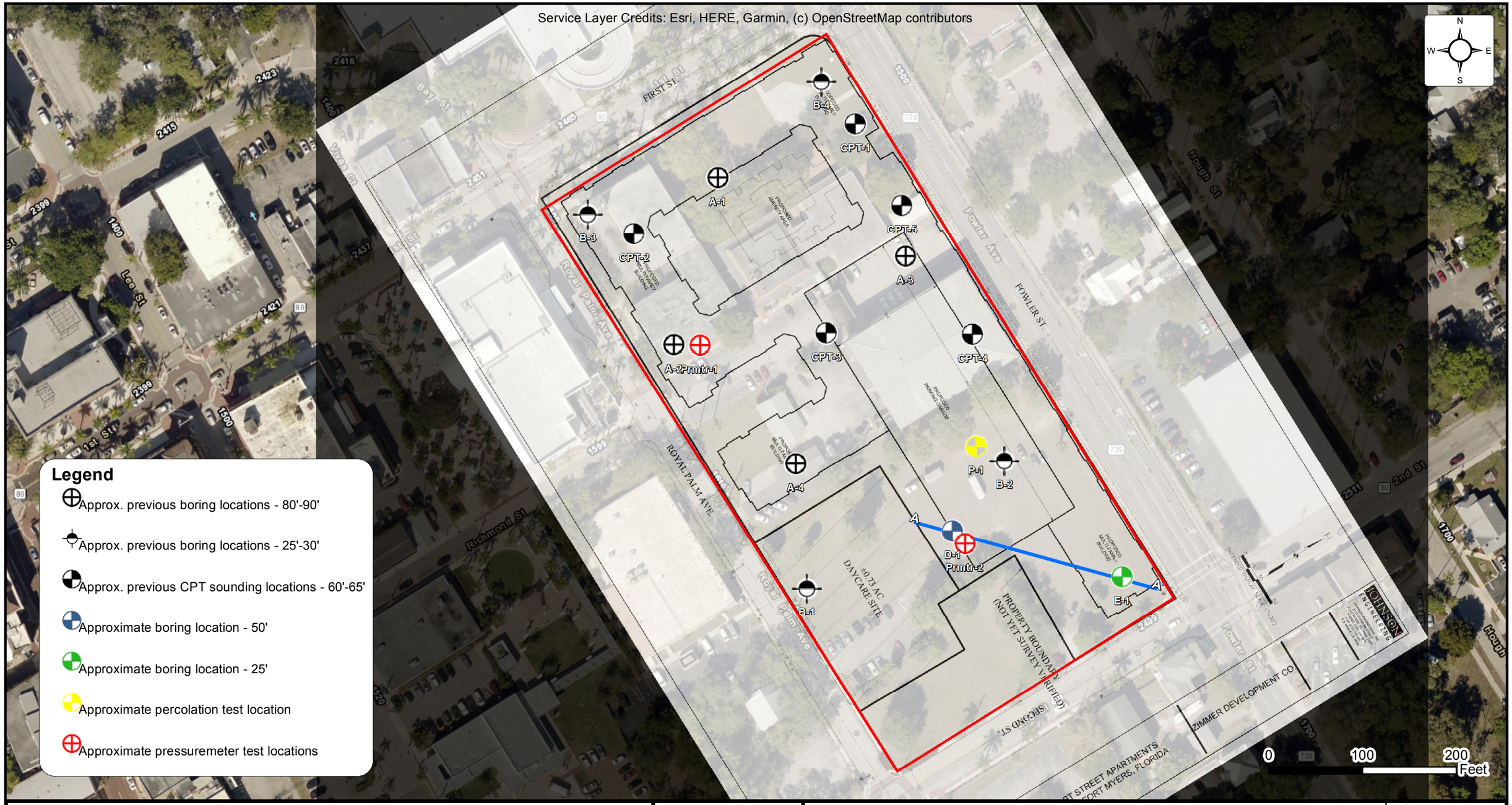
Site Location Diagram
Boring Location Diagram
Subsurface Profile



Site Location Diagram
FIRST STREET APARTMENTS

2466 FIRST STREET, FORT MYERS, FLORIDA
ZIMMER DEVELOPMENT COMPANY

ENGINEER	DS05
SCALE	AS NOTED
PROJECT NO.	60:1303
SHEET	1
DATE	12/9/2020



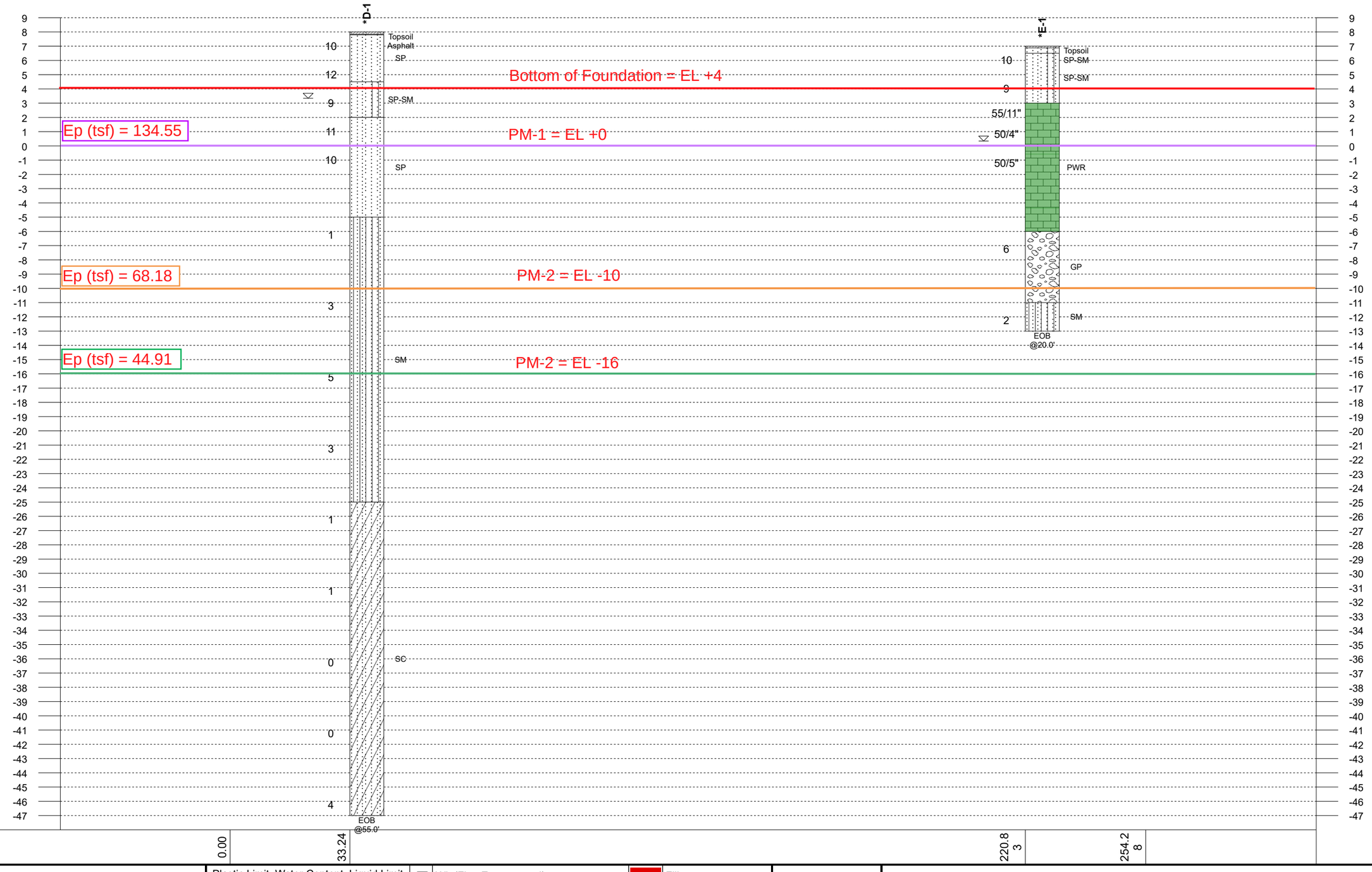
Boring Location Diagram

ZIMMER DEVELOPMENT COMPANY

CHURCH SITE

2466 FIRST STREET, FORT MYERS, FLORIDA

ENGINEER	DS05
SCALE	AS NOTED
PROJECT NO.	60:1303
SHEET	1
DATE	1/29/2021



Legend Key

- Topsoil
- Asphalt
- Poorly Graded SAND
- Poorly Graded SAND w…
- PWR
- SILTY SAND
- Poorly Graded GRAVEL CLAYEY SAND

Notes:

1- EOB: END 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).

Plastic Limit Water Content Liquid Limit

[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 SUBSURFACE SOIL PROFILE Section line A

Church Site

Zimmer Development Company

2466 First Street, Fort Myers, Florida 33901

Project No: 60:1303 Date: 01/29/2021

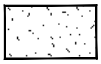
APPENDIX B – Field Operations

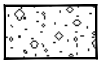
Reference Notes for Boring Logs
Subsurface Exploration Procedure: Standard Penetration Testing (SPT)
Boring Logs D-1, E-1, B-1 - B-4, CPT-1 - CPT-5, A-1 - A-4

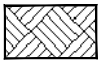
REFERENCE NOTES FOR BORING LOGS

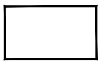
MATERIAL[1,2]

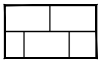

ASPHALT


CONCRETE


GRAVEL

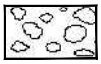

TOPSOIL

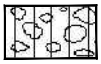

VOID


BRICK

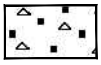

AGGREGATE BASE COURSE

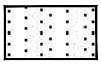

GW **WELL-GRADED GRAVEL**
gravel-sand mixtures, little or no fines

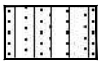

GP **POORLY-GRADED GRAVEL**
gravel-sand mixtures, little or no fines


GM **SILTY GRAVEL**
gravel-sand-silt mixtures

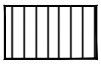

GC **CLAYEY GRAVEL**
gravel-sand-clay mixtures

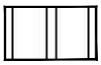

SW **WELL-GRADED SAND**
gravelly sand, little or no fines

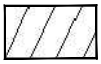

SP **POORLY-GRADED SAND**
gravelly sand, little or no fines


SM **SM SILTY SAND**
sand-silt mixtures

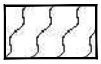

SC **CLAYEY SAND**
sand-clay mixtures

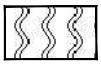

ML **SILT**
non-plastic to medium plasticity

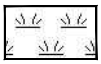

MH **ELASTIC SILT**
high plasticity


CL **LEAN CLAY**
low to medium plasticity


CH **FAT CLAY**
high plasticity


OL **ORGANIC SILT or CLAY**
non-plastic to low plasticity


OH **ORGANIC SILT or CLAY**
high plasticity


PT **PEAT**
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, Q_P[4]	SPT[5] (BPF)	CONSISTENCY[7] (COHESIVE)
<0.25	<3	Very Soft
0.25 - <0.50	3 - 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

GRAVELS, SANDS & NON-COHESIVE SILTS

SPT[5]	DENSITY
<5	Very Loose
5 - 10	Loose
11 - 30	Medium Dense
31 - 50	Dense
>50	Very Dense

RELATIVE AMOUNT[7]	COARSE GRAINED (%)[8]	FINE GRAINED (%)[8]
Trace	≤5	≤5
With	10 - 20	10 - 25
Adjective *(ex: "Silty")*	25 - 45	30 - 45

WATER LEVELS[6]

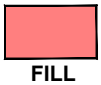

WL (First Encountered)


WL (Completion)


WL (Seasonal High Water)


WL (Stabilized)

FILL AND ROCK


FILL


POSSIBLE FILL


PROBABLE FILL


ROCK

[1]Classifications and symbols per ASTM D 2488-17 (Visual-Manual Procedure) unless noted otherwise.

[2]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.

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

[4]Typically estimated via pocket penetrometer or Torvane shear test and expressed in tons per square foot (tsf).

[5]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.

[6]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.

[7]Minor deviation from ASTM D 2488-17 Note 14.

[8]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 12 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 two-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.

CLIENT:	PROJECT NO.:	BORING NO.:	SHEET:
Zimmer Development Company	**60:1303**	**D-1**	**1 of 2**
PROJECT NAME:	DRILLER/CONTRACTOR:		
Church Site	**ECS**		
SITE LOCATION:			LOSS OF CIRCULATION
2466 First Street, Fort Myers, Florida 33901			
NORTHING:	EASTING:	STATION:	SURFACE ELEVATION:
840117.4	**700063.9**		**8.0**

Plastic Limit Water Content Liquid Limit

⊗ STANDARD PENETRATION BLOWS/FT

ROCK QUALITY DESIGNATION & RECOVERY

RQD

REC

○ CALIBRATED PENETROMETER TON/SF

[FINES CONTENT] %

DEPTH (FT)	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
	S-1	SS	24	24	Topsoil Thickness[2.00"] Asphalt Thickness[0.50"] (SP) FINE TO MEDIUM SAND, gray to brown, moist, loose to medium dense			4-4-6-5 (10)
	S-2	SS	24	24				5-6-6-12 (12)
5	S-3	SS	24	20	(SP-SM) FINE TO MEDIUM SAND WITH SILT, reddish brown, moist to wet, medium dense to loose	▽	3	4-4-5-4 (9)
	S-4	SS	24	24	(SP) FINE TO MEDIUM SAND, light tan, wet, loose to medium dense, contains significant shell fragments			5-5-6-6 (11)
	S-5	SS	24	24				3-5-5-4 (10)
10							-2	
	S-6	SS	18	6	(SM) SILTY SAND, light gray, wet, very loose to loose, highly weathered limestone, contains shell and rock fragments		-7	1-1-WOH (1)
15								
	S-7	SS	18	18				2-1-2 (3)
20							-12	
	S-8	SS	18	5				1-2-3 (5)
25							-17	
	S-9	SS	18	12				2-1-2 (3)
30							-22	

CONTINUED ON NEXT PAGE

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL

▽ WL (First Encountered) **4.50**	BORING STARTED: **Dec 16 2020**		CAVE IN DEPTH:
▼ WL (Completion)	BORING COMPLETED: **Dec 16 2020**		HAMMER TYPE: **Auto**
▼ WL (Seasonal High Water)	EQUIPMENT: **Truck**	LOGGED BY: **JDY**	DRILLING METHOD: **mud-rotary**
▽ WL (Stabilized)			

GEOTECHNICAL BOREHOLE LOG

CLIENT:	PROJECT NO.:	BORING NO.:	SHEET:
Zimmer Development Company	**60:1303**	**D-1**	**2 of 2**
PROJECT NAME:	DRILLER/CONTRACTOR:		
Church Site	**ECS**		
SITE LOCATION: **2466 First Street, Fort Myers, Florida 33901**			LOSS OF CIRCULATION
NORTHING: **840117.4**	EASTING: **700063.9**	STATION:	SURFACE ELEVATION: **8.0**
			BOTTOM OF CASING

DEPTH (FT)	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
35	S-10	SS	18	18	(SM) SILTY SAND, light gray, wet, very loose to loose, highly weathered limestone, contains shell and rock fragments (SC) CLAYEY FINE TO MEDIUM SAND, gray, wet, very loose		-27	2-1-WOH (1)
40	S-11	SS	18	18			-32	WOH-1-WOH (1)
45	S-12	SS	18	18			-37	1-WOH-WOH (0)
50	S-13	SS	18	18			-42	WOH-WOH-WOH (0)
55	S-14	SS	18	18	**END OF DRILLING AT 55.0 FT**		-47	2-2-2 (4)
60							-52	

Plastic Limit Water Content Liquid Limit
X——●——△
⊗ STANDARD PENETRATION BLOWS/FT
ROCK QUALITY DESIGNATION & RECOVERY
RQD
REC
○ CALIBRATED PENETROMETER TON/SF
[FINES CONTENT] %

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL

▽ WL (First Encountered) **4.50**	BORING STARTED: **Dec 16 2020**		CAVE IN DEPTH:
▼ WL (Completion)	BORING COMPLETED: **Dec 16 2020**		HAMMER TYPE: **Auto**
▼ WL (Seasonal High Water)	EQUIPMENT: **Truck**	LOGGED BY: **JDY**	DRILLING METHOD: **mud-rotary**
▽ WL (Stabilized)			

GEOTECHNICAL BOREHOLE LOG

CLIENT:	PROJECT NO.:	BORING NO.:	SHEET:
Zimmer Development Company	**60:1303**	**E-1**	**1 of 1**
PROJECT NAME:	DRILLER/CONTRACTOR:		
Church Site	**ECS**		
SITE LOCATION:			LOSS OF CIRCULATION
2466 First Street, Fort Myers, Florida 33901			
NORTHING:	EASTING:	STATION:	SURFACE ELEVATION:
840068.3	**700244.9**		**7.0**

DEPTH (FT)	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
0	S-1	SS	24	10	Topsoil Thickness[1.50"] (SP-SM) FINE TO MEDIUM SAND WITH SILT, contains roots, dark brown, moist, medium dense		7	3-4-6-10 (10)
	S-2	SS	24	13	(SP-SM) FINE TO MEDIUM SAND WITH SILT, reddish brown to gray, moist, loose			4-4-5-7 (9)
5	S-3	SS	17	12	(WR) PARTIALLY WEATHERED LIMESTONE SAMPLED AS GRAVEL WITH SAND, gray, moist to wet, very dense [Weathered LIMESTONE]	▽	2	4-5-50/5" (55/11")
	S-4	SS	4	2				50/4" (50/4")
	S-5	SS	5	4				50/5" (50/5")
10							-3	
15	S-6	SS	18	2	(GP) GRAVEL WITH SAND, contains significant rock fragments, gray, wet, loose, highly weathered limestone		-8	3-3-3 (6)
20	S-7	SS	18	14	(SM) SILTY FINE TO MEDIUM SAND, gray, saturated, very loose		-13	1-1-1 (2)
					END OF DRILLING AT 20.0 FT			
25							-18	
30							-23	

Plastic Limit Water Content Liquid Limit

⊗ STANDARD PENETRATION BLOWS/FT

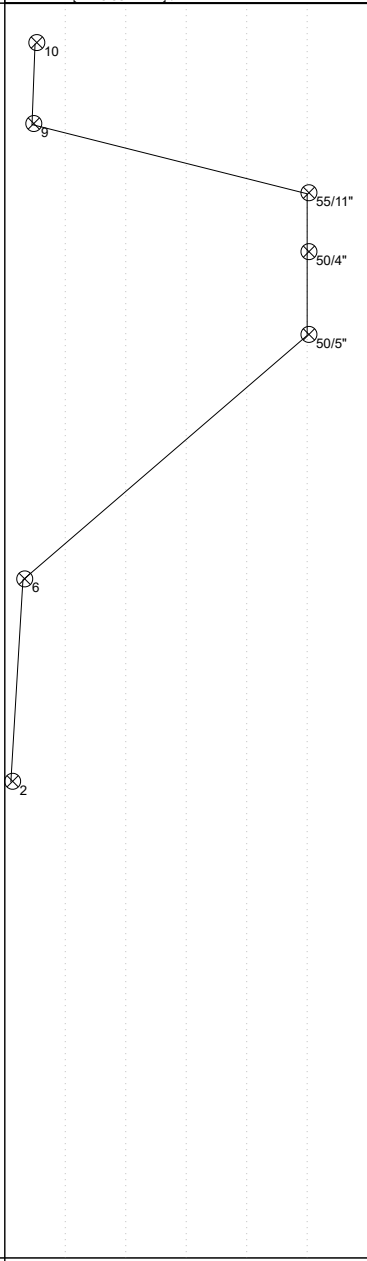
ROCK QUALITY DESIGNATION & RECOVERY

RQD

REC

○ CALIBRATED PENETROMETER TON/SF

[FINES CONTENT] %



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL

▽ WL (First Encountered) **6.50**	BORING STARTED: **Dec 16 2020**		CAVE IN DEPTH:
▼ WL (Completion)	BORING COMPLETED: **Dec 16 2020**		HAMMER TYPE: **Auto**
▽ WL (Seasonal High Water)	EQUIPMENT: **Truck**	LOGGED BY: **JDY**	DRILLING METHOD: **mud-rotary**
▽ WL (Stabilized)			

GEOTECHNICAL BOREHOLE LOG

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1008	B-01	1 OF 1

PROJECT NAME	ARCHITECT-ENGINEER
Ft. Myers Methodist Apartments	Paul Benvie

SITE LOCATION

1st Street and Fowler Street, Ft. Myers, Lee County, FL

NORTHING	EASTING	STATION

CALIBRATED PENETROMETER TONS/FT^2

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ——

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

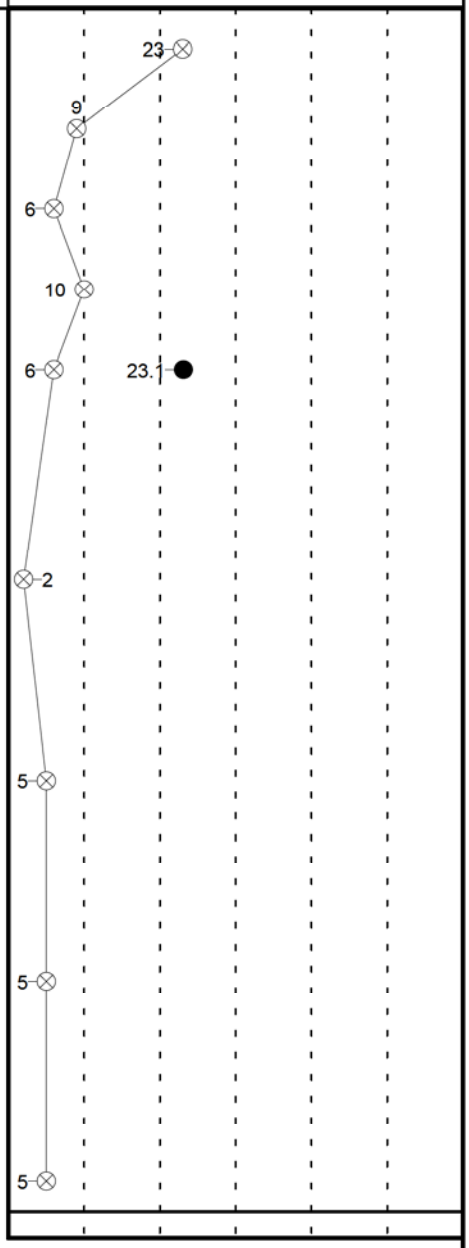
STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING | LOSS OF CIRCULATION

SURFACE ELEVATION 6.6

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
0					Topsoil Depth [6.00"]			6 8 15 17
	S-1	SS	24	24	(SP) SAND, contains roots, brown to tan, moist, medium dense		5	8 4 5 4
	S-2	SS	24	24	(ML) SANDY SILT, brownish tan, wet, stiff to medium stiff with rock fragments			3 2 4 2
5	S-3	SS	24	24				2 3 7 8
	S-4	SS	24	24	(ML) SANDY SILT, contains rock fragments, medium stiff tan, saturated,		0	5 4 2 1
	S-5	SS	24	24				
10							-5	
	S-6	SS	18	18				1 1 1
15					(ML/CL) SANDY CLAYEY SILT, grayish tan, saturated,firm		-10	
	S-7	SS	18	18				5 3 2
20					(CL/ML) SANDY SILTY CLAY, grayish tan, saturated, firm		-15	
	S-8	SS	18	18				4 3 2
25							-20	
	S-9	SS	18	18				2 2 3
30					END OF BORING @ 30'			



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 4 WS ☐ WD ☐	BORING STARTED 04/03/18	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 04/03/18	HAMMER TYPE Manual
WL	RIG ATV FOREMAN Bre	DRILLING METHOD

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1008	B-02	1 OF 1

PROJECT NAME	ARCHITECT-ENGINEER
Ft. Myers Methodist Apartments	Paul Benvie

SITE LOCATION

1st Street and Fowler Street, Ft. Myers, Lee County, FL

NORTHING	EASTING	STATION

CALIBRATED PENETROMETER TONS/FT^2

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ——

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

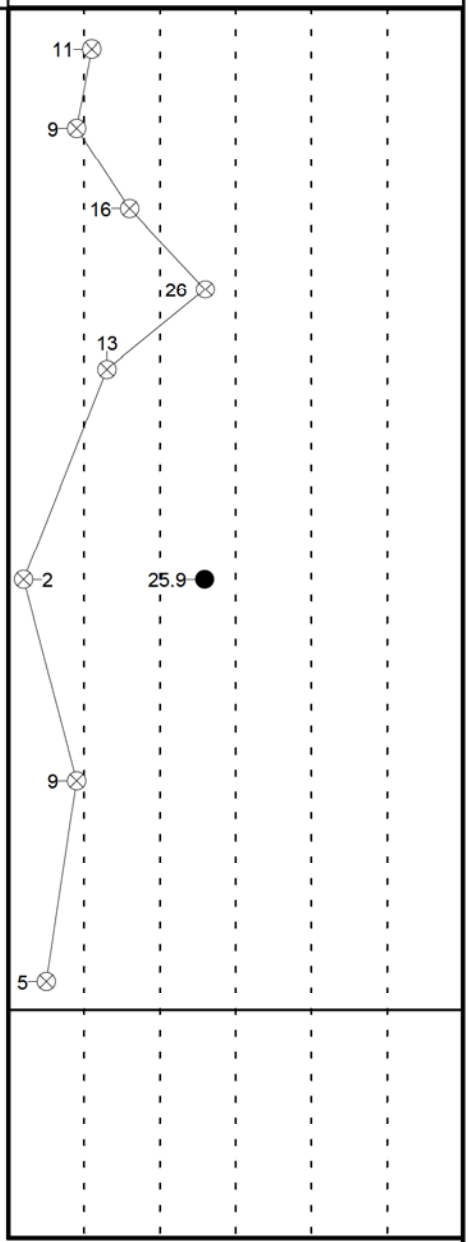
STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING | LOSS OF CIRCULATION

SURFACE ELEVATION 3.2

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
0					Topsoil Depth [6.00"]			
	S-1	SS	24	24	(SP) SAND, contains roots, brown to tan, moist, medium dense			6 6 5
	S-2	SS	24	24	(SM) SILTY SAND, tan, saturated, loose to medium dense		0	3 7 5 4 3
5	S-3	SS	24	24				6 7 9 12
	S-4	SS	24	24	(SP) SAND WITH ROCK FRAGMENTS, tan brownish, saturated, medium dense		-5	15 17 9 7 6
	S-5	SS	24	24				7 6 5
10					(ML) SANDY SILT WITH ROCK FRAGMENTS, tan, saturated, soft to medium stiff		-10	
	S-6	SS	18	18				2 1 1
15							-15	
	S-7	SS	18	18				3 5 4
20							-20	
	S-8	SS	18	18				4 3 2
25					END OF BORING @ 25'		-25	
30								



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 3.5 WS ☐ WD ☐	BORING STARTED 04/03/18	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 04/03/18	HAMMER TYPE Manual
WL	RIG ATV FOREMAN Bre	DRILLING METHOD

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1008	B-03	1 OF 1

PROJECT NAME	ARCHITECT-ENGINEER
Ft. Myers Methodist Apartments	Paul Benvie

SITE LOCATION

1st Street and Fowler Street, Ft. Myers, Lee County, FL

NORTHING	EASTING	STATION

CALIBRATED PENETROMETER TONS/FT^2

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ——

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

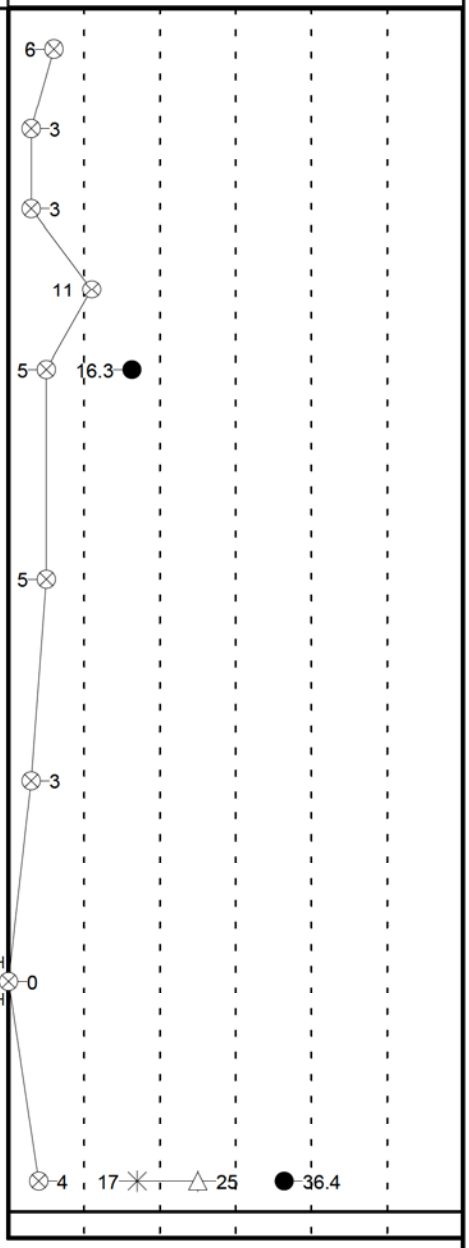
STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING | LOSS OF CIRCULATION

SURFACE ELEVATION 3.2

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
0					Topsoil Depth [6.00"]			
	S-1	SS	24	24	(SP) SAND, brown and to tan, moist to saturated, very loose to loose			3 3 3 2
	S-2	SS	24	24			0	3 2 1 1
5	S-3	SS	24	24	(ML) Sandy Silt			1 1 2 3
	S-4	SS	24	24			-5	5 6 5 5
	S-5	SS	24	24				13 2 3 3
10					(ML) SANDY SILT WITH GRAVEL, brownish tan, saturated, soft and medium stiff		-10	
	S-6	SS	18	18				3 2 3
15							-15	
	S-7	SS	18	18				2 1 2
20					(CL/ML) SANDY SILTY CLAY, contains rock fragments, brownish tan, saturated, very soft to soft		-20	
	S-8	SS	18	18				WOH WOH WOH
25							-25	
	S-9	SS	18	18				3 2 2
30					END OF BORING @ 30'			



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 6 WS ☐ WD ☐	BORING STARTED 04/03/18	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 04/03/18	HAMMER TYPE Manual
WL	RIG ATV FOREMAN Bre	DRILLING METHOD

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1008	B-04	1 OF 1

PROJECT NAME	ARCHITECT-ENGINEER
Ft. Myers Methodist Apartments	Paul Benvie

SITE LOCATION

1st Street and Fowler Street, Ft. Myers, Lee County, FL

NORTHING	EASTING	STATION

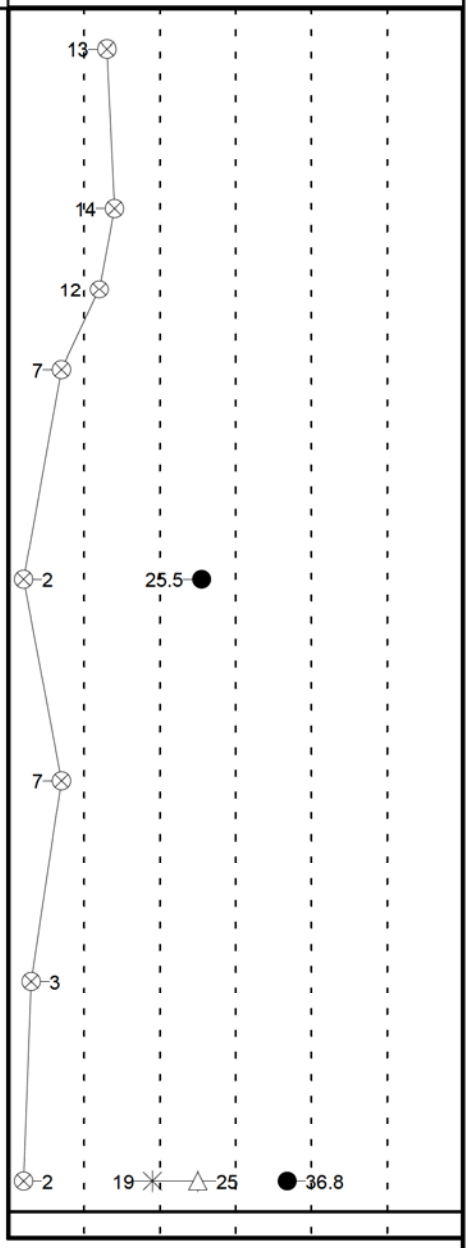
CALIBRATED PENETROMETER TONS/FT^2

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ———

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

STANDARD PENETRATION BLOWS/FT

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL (ENGLISH UNITS)	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
0					BOTTOM OF CASING ➧ LOSS OF CIRCULATION 100%			
					SURFACE ELEVATION			
0	S-1	SS	24	24	Topsoil Depth [6.00"] (SP) SAND, contains roots, brown to tan, moist to wet, medium dense	▽		6 7 6 8
5	S-2	SS	24	24				7 7 7 10
	S-3	SS	24	24				5 5 7 9
	S-4	SS	24	24	(SP) SAND, contains rock fragments, tan, saturated, loose (ML) Sandy Silt with rock fragments			4 3 4 5
10					(SP-SM) SAND WITH SILT, brownish tan, saturated, very loose			
	S-5	SS	18	18				1 1 1
15					(SM) SILTY SAND, trace clay, brownish tan, saturated, very loose to loose			
	S-6	SS	18	18				3 3 4
20								
	S-7	SS	18	18				2 1 2
25					(CL/ML) SANDY SILTY CLAY, brownish tan, saturated, soft			
	S-8	SS	18	18				2 1 1
30					END OF BORING @ 30'			



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

▽ WL 4.0 WS ☐ WD ☐	BORING STARTED 04/03/18	CAVE IN DEPTH
▽ WL(SHW) ▼ WL(ACR)	BORING COMPLETED 04/03/18	HAMMER TYPE Manual
▽ WL	RIG ATV FOREMAN Bre	DRILLING METHOD

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1008	B-1	1 OF 1

PROJECT NAME	ARCHITECT-ENGINEER
Ft. Myers Methodist Apartments	

SITE LOCATION

1st Street and Fowler Street, Ft. Myers, Lee County, FL

NORTHING	EASTING	STATION

CALIBRATED PENETROMETER TONS/FT^2

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ———

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

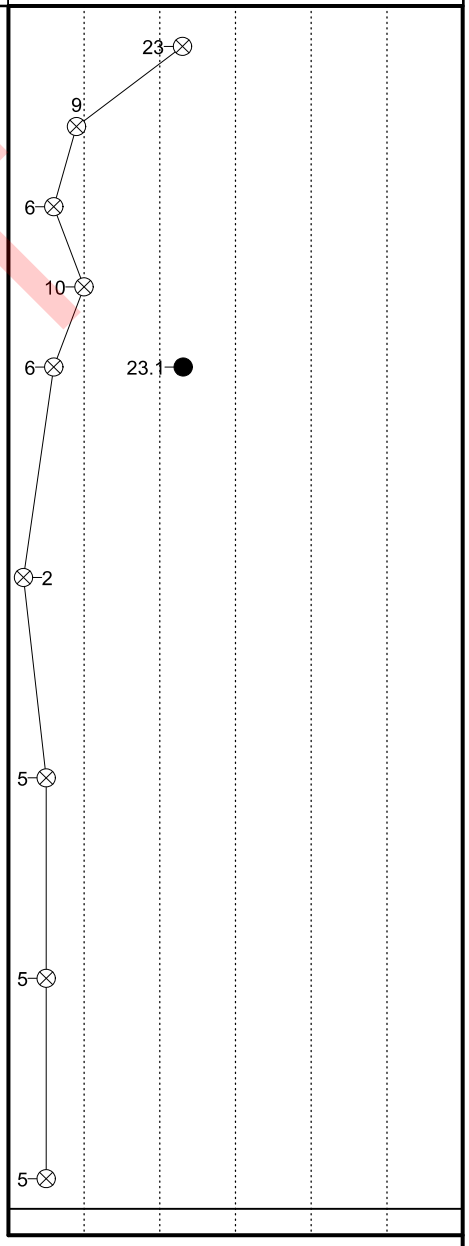
STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING ▶ LOSS OF CIRCULATION (100%)

SURFACE ELEVATION 8 feet (approx.)

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
0	S-1	SS	24	24	Topsoil Depth [6.00"] (SP) SAND, contains roots, brown to tan, moist, medium dense			6 8 15 17
	S-2	SS	24	24	(ML) SANDY SILT, brownish tan, wet, stiff to medium stiff with rock fragments		5	8 4 5 4
5	S-3	SS	24	24				3 2 4 2
	S-4	SS	24	24	(ML) SANDY SILT, contains rock fragments, medium stiff tan, saturated,		0	2 3 7 8
	S-5	SS	24	24				5 4 2 1
10							-5	
	S-6	SS	18	18				1 1 1
15					(ML/CL) SANDY CLAYEY SILT, grayish tan, saturated,firm		-10	
	S-7	SS	18	18				5 3 2
20					(CL/ML) SANDY SILTY CLAY, grayish tan, saturated, firm		-15	
	S-8	SS	18	18				4 3 2
25							-20	
	S-9	SS	18	18				2 2 3
30					END OF BORING @ 30'			



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 4 WS ☐ WD ☐	BORING STARTED 04/03/18	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 04/03/18	HAMMER TYPE Manual
WL	RIG ATV FOREMAN Bre	DRILLING METHOD

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1008	B-2	1 OF 1

PROJECT NAME	ARCHITECT-ENGINEER
Ft. Myers Methodist Apartments	

SITE LOCATION: 1st Street and Fowler Street, Ft. Myers, Lee County, FL

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT²

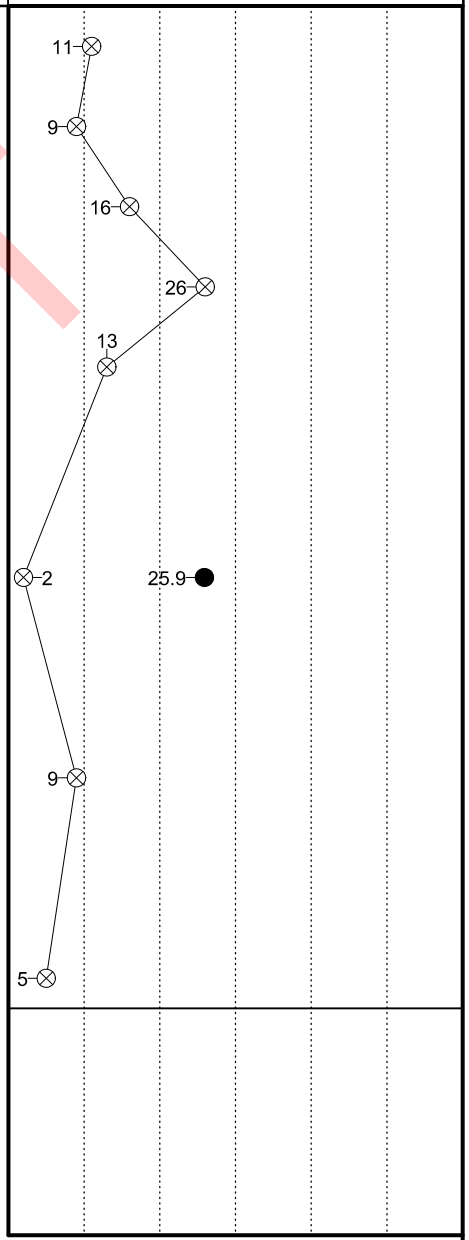
ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ———

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

STANDARD PENETRATION BLOWS/FT

BOTTOM OF CASING | LOSS OF CIRCULATION | SURFACE ELEVATION 9 feet (approx.) | ENGLISH UNITS

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
0	S-1	SS	24	24	Topsoil Depth [6.00"] (SP) SAND, contains roots, brown to tan, moist, medium dense			6 6 5
	S-2	SS	24	24	(SM) SILTY SAND, tan, saturated, loose to medium dense			3 7 5
5	S-3	SS	24	24			5	4 3 6
	S-4	SS	24	24	(SP) SAND WITH ROCK FRAGMENTS, tan brownish, saturated, medium dense			7 9 12
	S-5	SS	24	24			0	15 17 9
10					(ML) SANDY SILT WITH ROCK FRAGMENTS, tan, saturated, soft to medium stiff			7 6 7
	S-6	SS	18	18			-5	6 5 2
15								1 1
	S-7	SS	18	18			-10	3 5 4
20								
	S-8	SS	18	18			-15	4 3 2
25					END OF BORING @ 25'			
30							-20	



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 3.5 WS ☐ WD ☐	BORING STARTED 04/03/18	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 04/03/18	HAMMER TYPE Manual
WL	RIG ATV FOREMAN Bre	DRILLING METHOD

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1008	B-3	1 OF 1

PROJECT NAME	ARCHITECT-ENGINEER
Ft. Myers Methodist Apartments	

SITE LOCATION: 1st Street and Fowler Street, Ft. Myers, Lee County, FL

NORTHING	EASTING	STATION

CALIBRATED PENETROMETER TONS/FT²

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ———

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

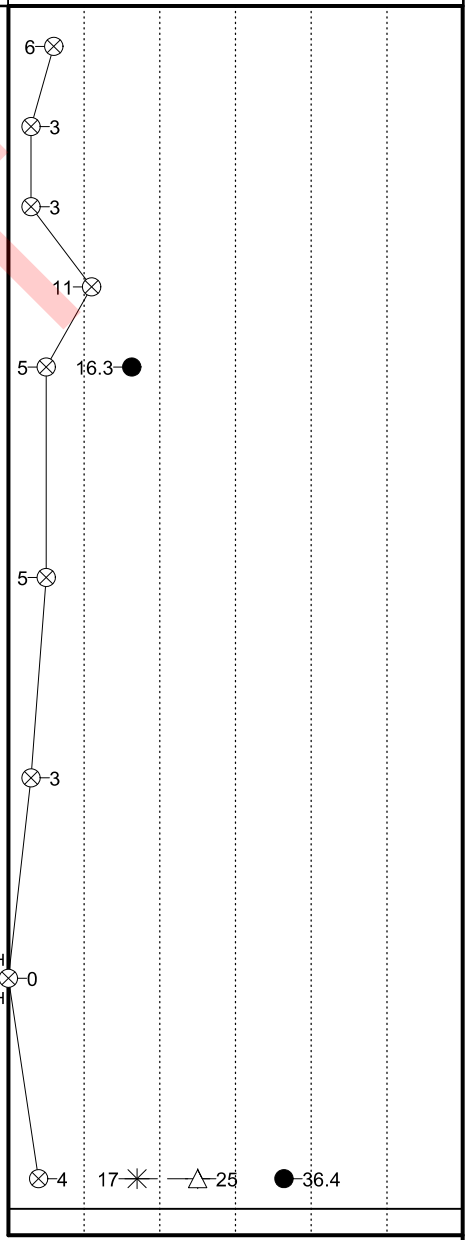
STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING | LOSS OF CIRCULATION

SURFACE ELEVATION 6 feet (approx.)

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
0	S-1	SS	24	24	Topsoil Depth [6.00"] (SP) SAND, brown and to tan, moist to saturated, very loose to loose		5	3 3 3 2
	S-2	SS	24	24				3 2 1 1
5	S-3	SS	24	24	(ML) Sandy Silt	▽	0	1 1 2 3
	S-4	SS	24	24				5 6 5 5
	S-5	SS	24	24				13 2 3 3
10					(ML) SANDY SILT WITH GRAVEL, brownish tan, saturated, soft and medium stiff		-5	
	S-6	SS	18	18				3 2 3
15							-10	
	S-7	SS	18	18				2 1 2
20					(CL/ML) SANDY SILTY CLAY, contains rock fragments, brownish tan, saturated, very soft to soft		-15	
	S-8	SS	18	18				WOH WOH WOH
25							-20	
	S-9	SS	18	18				3 2 2
30					END OF BORING @ 30'			



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 6 WS ☐ WD ☐	BORING STARTED 04/03/18	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 04/03/18	HAMMER TYPE Manual
WL	RIG ATV FOREMAN Bre	DRILLING METHOD

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1008	B-4	1 OF 1

PROJECT NAME	ARCHITECT-ENGINEER
Ft. Myers Methodist Apartments	

SITE LOCATION: 1st Street and Fowler Street, Ft. Myers, Lee County, FL

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT²

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ———

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

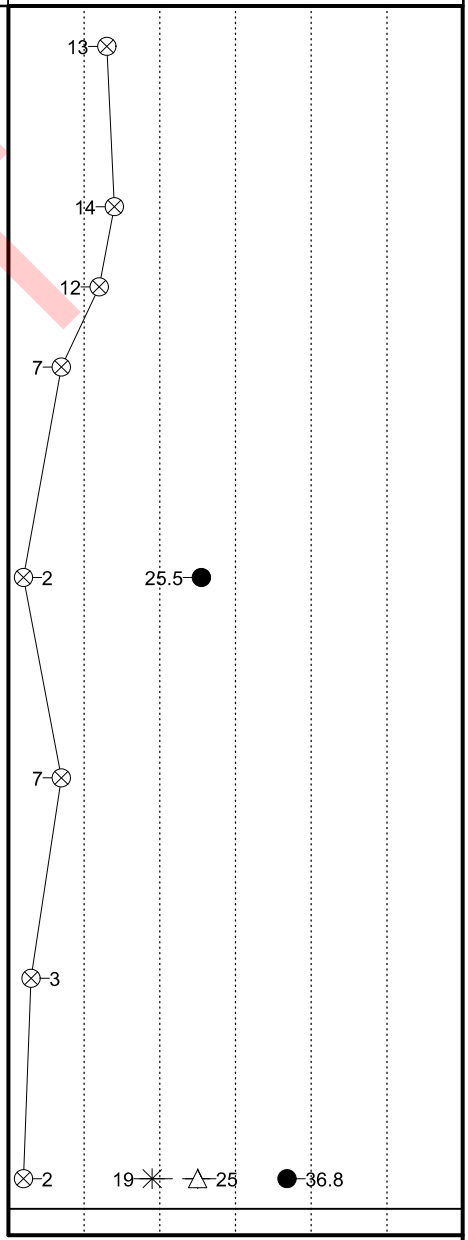
STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING | LOSS OF CIRCULATION

SURFACE ELEVATION 6 feet (approx.)

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
0	S-1	SS	24	24	Topsoil Depth [6.00"] (SP) SAND, contains roots, brown to tan, moist to wet, medium dense		5	6 7 6 8
5	S-2	SS	24	24			0	7 7 7 10
	S-3	SS	24	24				5 5 7 9
	S-4	SS	24	24	(SP) SAND, contains rock fragments, tan, saturated, loose (ML) Sandy Silt with rock fragments			4 3 4 5
10					(SP-SM) SAND WITH SILT, brownish tan, saturated, very loose		-5	
	S-5	SS	18	18				1 1 1
15					(SM) SILTY SAND, trace clay, brownish tan, saturated, very loose to loose		-10	
	S-6	SS	18	18				3 3 4
20							-15	
	S-7	SS	18	18				2 1 2
25					(CL/ML) SANDY SILTY CLAY, brownish tan, saturated, soft		-20	
	S-8	SS	18	18				2 1 1
30					END OF BORING @ 30'			



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 4.0 WS ☐ WD ☐	BORING STARTED 04/03/18	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 04/03/18	HAMMER TYPE Manual
WL	RIG ATV FOREMAN Bre	DRILLING METHOD

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1089	A-1	1 OF 3

PROJECT NAME: Fort Myer River District (FKA Fort Myers Methodist Apartments)

ARCHITECT-ENGINEER:

SITE LOCATION: Fowler Street and First Street, Fort Myers, Lee County, FL

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT²

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ———

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

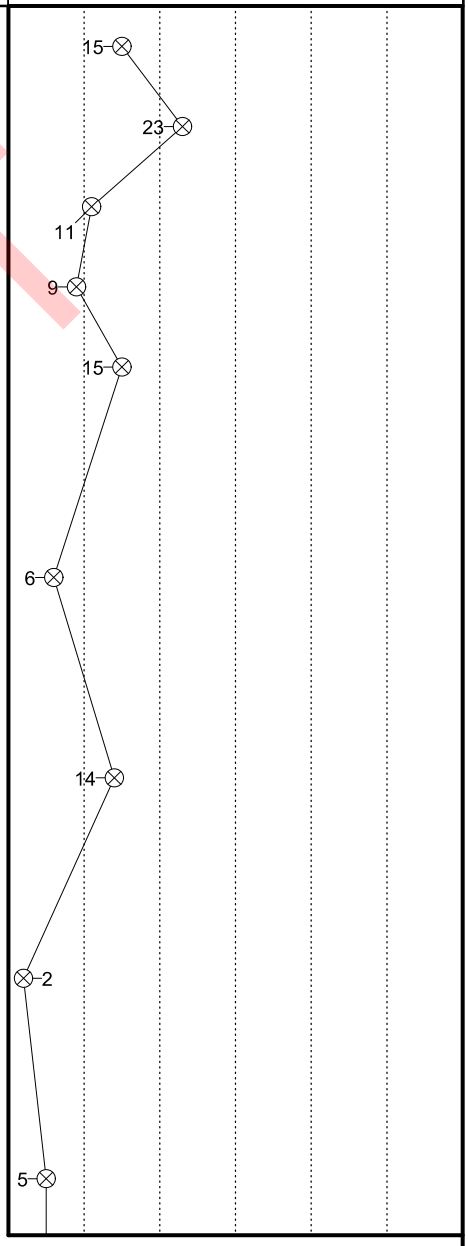
STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING | LOSS OF CIRCULATION

SURFACE ELEVATION 7 feet (approx.)

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
0	S-1	SS	24	24	(SP) SAND, dark brown to light brown, moist to wet, medium dense		5	5 6 9 8
	S-2	SS	24	24				8 11 12 12
5	S-3	SS	24	24				6 5 6 5
	S-4	SS	24	24			0	5 4 5 4
	S-5	SS	24	24				6 8 7 8
10							-5	
	S-6	SS	18	18	(SP) SAND WITH ROCK FRAGMENTS, light gray, wet, medium dense to loose			6 3 3
15							-10	
	S-7	SS	18	18				8 6 8
20					(SM) SANDY SILT WITH SHELL FRAGMENTS, light brown, wet, medium dense to very loose		-15	
	S-8	SS	18	18				2 1 1
25							-20	
	S-9	SS	18	18				3 2 3
30								



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THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 6.00 WS ☐ WD ☐	BORING STARTED 02/11/19	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 02/12/19	HAMMER TYPE Auto
WL	RIG ATV FOREMAN Anthony	DRILLING METHOD Mud Rotary

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1089	A-1	2 OF 3

PROJECT NAME: Fort Myer River District (FKA Fort Myers Methodist Apartments)

ARCHITECT-ENGINEER:

SITE LOCATION: Fowler Street and First Street, Fort Myers, Lee County, FL

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT²

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ———

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING | LOSS OF CIRCULATION

SURFACE ELEVATION: 7 feet (approx.)

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
					(SM) SANDY SILT WITH SHELL FRAGMENTS, light brown, wet, medium dense to very loose		-25	
	S-10	SS	6	6	(CH/CL) SANDY CLAY, green, wet, stiff to firm			WOH
35							-30	
	S-11	SS	18	18				3 2 3
40							-35	
	S-12	SS	18	18				3 2 5
45							-40	
	S-13	SS	18	18				1 2 2
50							-45	
	S-14	SS	18	18				3 2 4
55							-50	
	S-15	SS	18	18				2 1 2
60								

5 | 7 | 4 | 6 | 3

CONTINUED ON NEXT PAGE.

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 6.00 WS ☐ WD ☐	BORING STARTED 02/11/19	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 02/12/19	HAMMER TYPE Auto
WL	RIG ATV FOREMAN Anthony	DRILLING METHOD Mud Rotary

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1089	A-1	3 OF 3

PROJECT NAME: Fort Myer River District (FKA Fort Myers Methodist Apartments)

ARCHITECT-ENGINEER:

SITE LOCATION: Fowler Street and First Street, Fort Myers, Lee County, FL

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT^2

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC%

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

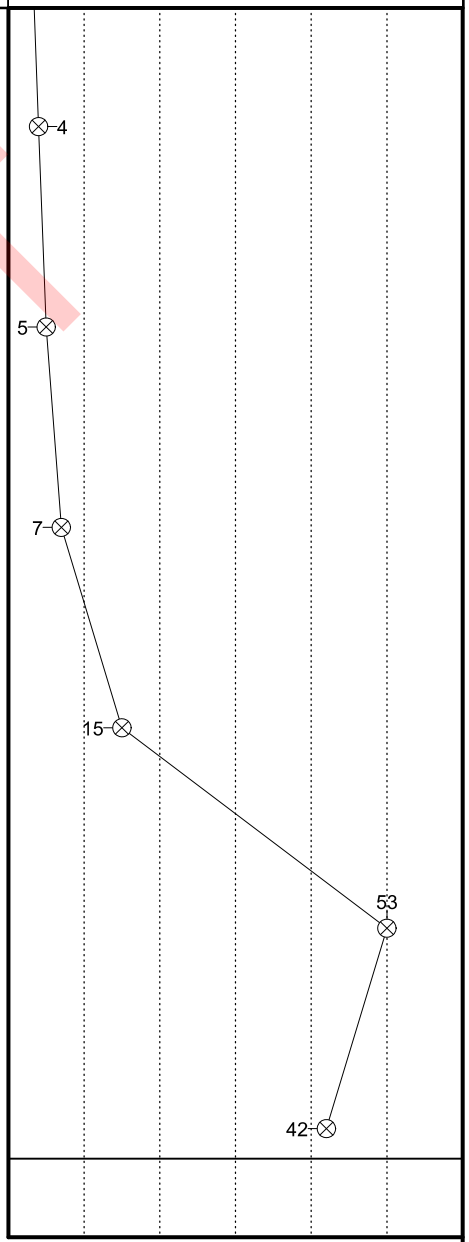
STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING | LOSS OF CIRCULATION

SURFACE ELEVATION 7 feet (approx.)

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
					(CH/CL) SANDY CLAY, green, wet, stiff to firm		-55	
65	S-16	SS	18	18				3 1 3
							-60	
70	S-17	SS	18	18				4 2 3
							-65	
75	S-18	SS	18	18				3 3 4
							-70	
80	S-19	SS	18	18	(SP-SC) SAND WITH CLAY, light gray, wet, medium dense			7 6 9
							-75	
85	S-20	SS	18	18	(SP) SAND, light gray, wet, dense to very Dense			22 25 28
							-80	
90	S-21	SS	18	18				25 19 23
					END OF BORING @ 90.00'			



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 6.00 WS ☐ WD ☐	BORING STARTED 02/11/19	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 02/12/19	HAMMER TYPE Auto
WL	RIG ATV FOREMAN Anthony	DRILLING METHOD Mud Rotary

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1089	A-2	1 OF 3

PROJECT NAME: Fort Myer River District (FKA Fort Myers Methodist Apartments)

ARCHITECT-ENGINEER:

SITE LOCATION: Fowler Street and First Street, Fort Myers, Lee County, FL

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT^2

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ———

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING | LOSS OF CIRCULATION

SURFACE ELEVATION: 7 feet (approx.)

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
0	S-1	SS	24	24	(SP) SAND, dark brown to light brown, moist to wet, very loose to loose		5	2 2 2 2 1
	S-2	SS	24	24				2 4 4 6 6
5	S-3	SS	24	24				6 5 5 5 5
	S-4	SS	24	24			0	2 3 4 4 3
	S-5	SS	24	24				4 3 6
10							-5	
	S-6	SS	18	18	(SP) SAND WITH ROCK FRAGMENTS, light gray, wet, loose			3 3 2
15							-10	
	S-7	SS	18	18				4 3 4
20							-15	
	S-8	SS	18	18	(SM) SILTY SAND WITH SHELL FRAGMENTS, light gray, wet, very loose to loose			3 1 1
25							-20	
	S-9	SS	18	18				1 3 3
30								

CONTINUED ON NEXT PAGE.

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 6.00 WS ☐ WD ☐	BORING STARTED 02/12/19	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 02/12/19	HAMMER TYPE Auto
WL	RIG ATV FOREMAN Anthony	DRILLING METHOD Mud Rotary

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1089	A-2	2 OF 3

PROJECT NAME: Fort Myer River District (FKA Fort Myers Methodist Apartments)

ARCHITECT-ENGINEER:

SITE LOCATION: Fowler Street and First Street, Fort Myers, Lee County, FL

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT^2

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ———

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING | LOSS OF CIRCULATION

SURFACE ELEVATION 7 feet (approx.)

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
						-25	
							2 1 1
35	S-10	SS	18	18		-30	2
							4 1 3
40	S-11	SS	18	18		-35	4
							2 1 2
45	S-12	SS	18	18		-40	3
							WOH WOH 3
50	S-13	SS	18	18		-45	3
							3 2 3
55	S-14	SS	18	18		-50	5
							2 2 3
60	S-15	SS	18	18			5

(SM) SILTY SAND WITH SHELL FRAGMENTS, light gray, wet, very loose to loose

(CH/CL) SANDY CLAY, green, wet, soft to stiff

CONTINUED ON NEXT PAGE.

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 6.00 WS ☐ WD ☐	BORING STARTED 02/12/19	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 02/12/19	HAMMER TYPE Auto
WL	RIG ATV FOREMAN Anthony	DRILLING METHOD Mud Rotary

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1089	A-2	3 OF 3

PROJECT NAME: Fort Myer River District (FKA Fort Myers Methodist Apartments)

ARCHITECT-ENGINEER:

SITE LOCATION: Fowler Street and First Street, Fort Myers, Lee County, FL

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT^2

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ———

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING | LOSS OF CIRCULATION

SURFACE ELEVATION: 7 feet (approx.)

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
					(CH/CL) SANDY CLAY, green, wet, soft to stiff		-55	
65	S-16	SS	18	18				7 3 7
							-60	
70	S-17	SS	18	18				2 2 3
							-65	
75	S-18	SS	18	18	(SP-SC) SAND WITH CLAY AND SHELL FRAGMENTS, gray, wet, medium dense			5 8 7
							-70	
80	S-19	SS	18	18				6 7 6
					END OF BORING @ 80.00'		-75	
85							-80	
90								

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 6.00 WS ☐ WD ☐	BORING STARTED 02/12/19	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 02/12/19	HAMMER TYPE Auto
WL	RIG ATV FOREMAN Anthony	DRILLING METHOD Mud Rotary

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1089	A-3	1 OF 3

PROJECT NAME: Fort Myer River District (FKA Fort Myers Methodist Apartments)

ARCHITECT-ENGINEER:

SITE LOCATION: Fowler Street and First Street, Fort Myers, Lee County, FL

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT^2

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ———

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

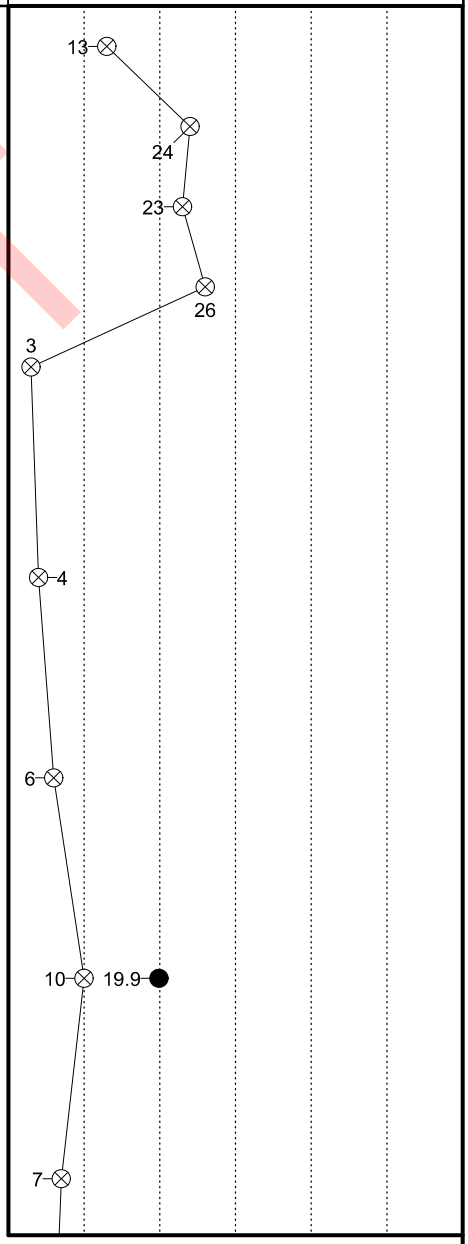
STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING | LOSS OF CIRCULATION

SURFACE ELEVATION: 7 feet (approx.)

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
0	S-1	SS	24	24	(SP) SAND WITH ROCK FRAGMENTS, dark brown, moist to wet, medium dense		5	8 6 7 8
	S-2	SS	24	24				4 7 17 13
5	S-3	SS	24	24				12 9 14 13
	S-4	SS	24	24			0	11 16 10 12
	S-5	SS	24	24	(SP) SAND WITH ROCK FRAGMENTS, light gray, wet, loose to very loose			4 1 2 1
10							-5	
	S-6	SS	18	18				4 2 2
15							-10	
	S-7	SS	18	18				4 3 3
20							-15	
	S-8	SS	18	18	(SC) FINE CLAYEY SAND, dark brown, wet, loose to very loose			6 5 5
25							-20	
	S-9	SS	18	18				2 4 3
30								



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THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 6.50 WS ☐ WD ☐	BORING STARTED 02/13/19	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 02/13/19	HAMMER TYPE Auto
WL	RIG ATV FOREMAN Anthony	DRILLING METHOD Mud Rotary

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1089	A-3	2 OF 3

PROJECT NAME: Fort Myer River District (FKA Fort Myers Methodist Apartments)

ARCHITECT-ENGINEER:

SITE LOCATION: Fowler Street and First Street, Fort Myers, Lee County, FL

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT^2

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ———

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

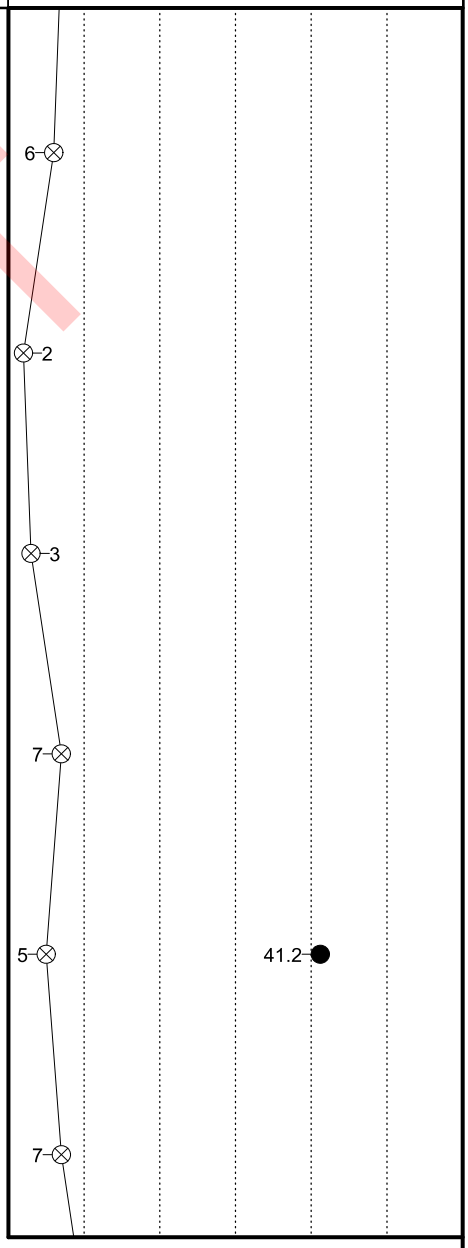
STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING | LOSS OF CIRCULATION

SURFACE ELEVATION: 7 feet (approx.)

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
35	S-10	SS	18	18	(SC) FINE CLAYEY SAND, dark brown, wet, loose to very loose		-25	4 3 3
							-30	
40	S-11	SS	18	18			-35	2 1 1
45	S-12	SS	18	18			-40	1 1 2
50	S-13	SS	18	18			-45	3 4 3
55	S-14	SS	18	18			-50	2 1 4
60	S-15	SS	18	18				3 4 3



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THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 6.50 WS ☐ WD ☐	BORING STARTED 02/13/19	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 02/13/19	HAMMER TYPE Auto
WL	RIG ATV FOREMAN Anthony	DRILLING METHOD Mud Rotary

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1089	A-3	3 OF 3

PROJECT NAME: Fort Myer River District (FKA Fort Myers Methodist Apartments)

ARCHITECT-ENGINEER:

SITE LOCATION: Fowler Street and First Street, Fort Myers, Lee County, FL

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT^2

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ———

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING | LOSS OF CIRCULATION

SURFACE ELEVATION 7 feet (approx.)

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
65	S-16	SS	18	18		-55	7 3 8
						-60	
70	S-17	SS	18	18			2 2 3
						-65	
75	S-18	SS	18	18			3 4 4
						-70	
80	S-19	SS	18	18			4 4 3
						-75	
85						-80	
90							

(SP-SC) SAND WITH CLAY AND ROCK FRAGMENTS, dark brown, wet, loose

END OF BORING @ 80.00'

11 5 8 7

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 6.50 WS ☐ WD ☐	BORING STARTED 02/13/19	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 02/13/19	HAMMER TYPE Auto
WL	RIG ATV FOREMAN Anthony	DRILLING METHOD Mud Rotary

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1089	A-4	1 OF 3

PROJECT NAME: Fort Myer River District (FKA Fort Myers Methodist Apartments)

ARCHITECT-ENGINEER:

SITE LOCATION: Fowler Street and First Street, Fort Myers, Lee County, FL

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT²

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ———

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

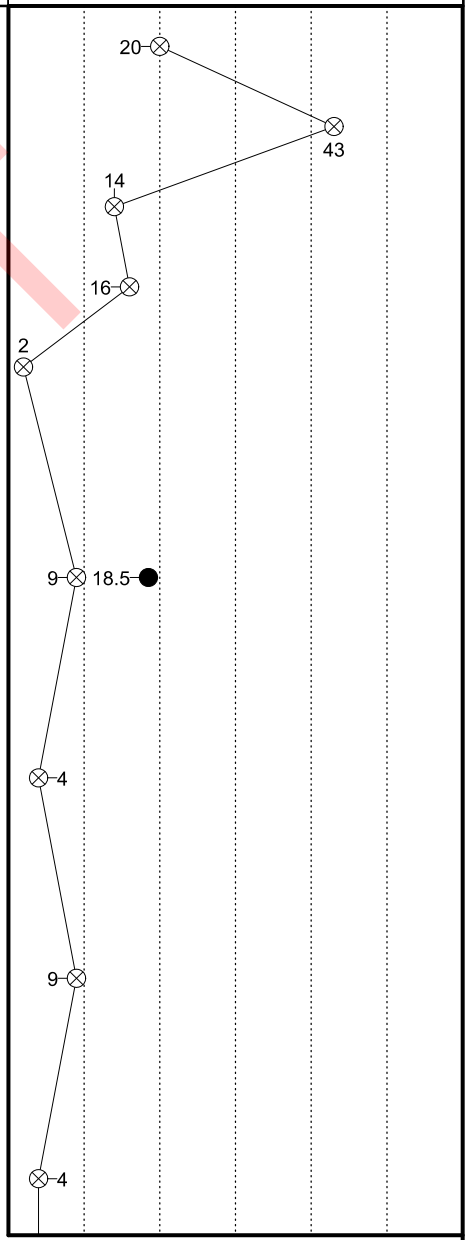
STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING | LOSS OF CIRCULATION

SURFACE ELEVATION: 8 feet (approx.)

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
0	S-1	SS	24	24	(SP) SAND WITH ROCK, dark brown to light brown, moist to wet, medium dense		5	4 7 13
	S-2	SS	24	24				50 29 30
5	S-3	SS	24	24				13 9 8
	S-4	SS	24	24			0	8 6 5
	S-5	SS	24	24	(SP) SAND WITH ROCK FRAGMENTS, light gray, wet, very loose			9 8 8
10							-5	4 3 1
	S-6	SS	18	18	(SC) CLAYEY SAND, light gray, wet, very loose to loose			1 1 4
15							-10	6 3
	S-7	SS	18	18				5 2 2
20							-15	
	S-8	SS	18	18				8 3 6
25							-20	
	S-9	SS	18	18	(CH/CL) SANDY CLAY, green, wet, very loose to loose			2 2 2
30								



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THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 6.50 WS ☐ WD ☐	BORING STARTED 02/11/19	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 02/11/19	HAMMER TYPE Auto
WL	RIG ATV FOREMAN Anthony	DRILLING METHOD Mud Rotary

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1089	A-4	2 OF 3

PROJECT NAME: Fort Myer River District (FKA Fort Myers Methodist Apartments)

ARCHITECT-ENGINEER:

SITE LOCATION: Fowler Street and First Street, Fort Myers, Lee County, FL

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT^2

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ———

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

STANDARD PENETRATION BLOWS/FT

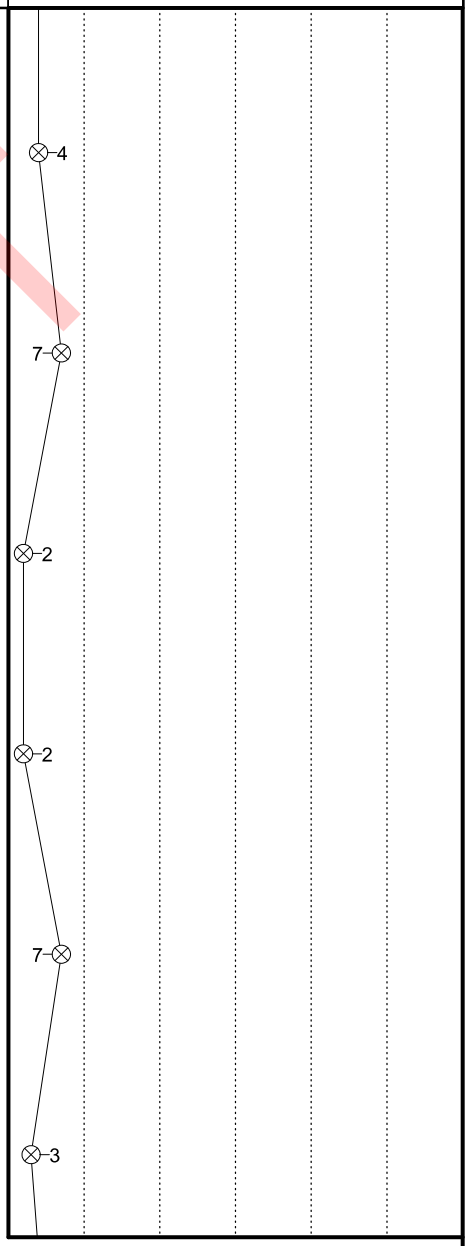
DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING | LOSS OF CIRCULATION

SURFACE ELEVATION: 8 feet (approx.)

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
	S-10	SS	18	18		-25	3 2 2
35							
	S-11	SS	18	18		-30	4 3 4
40							
	S-12	SS	18	18		-35	1 1 1
45							
	S-13	SS	18	18		-40	2 1 1
50							
	S-14	SS	18	18		-45	3 4 3
55							
	S-15	SS	18	18		-50	1 1 2
60							

(CH/CL) SANDY CLAY, green, wet, very loose to loose



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THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 6.50 WS ☐ WD ☐	BORING STARTED 02/11/19	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 02/11/19	HAMMER TYPE Auto
WL	RIG ATV FOREMAN Anthony	DRILLING METHOD Mud Rotary

CLIENT	Job #:	BORING #	SHEET
Framework Group, LLC	60:1089	A-4	3 OF 3

PROJECT NAME: Fort Myer River District (FKA Fort Myers Methodist Apartments)

ARCHITECT-ENGINEER:

SITE LOCATION: Fowler Street and First Street, Fort Myers, Lee County, FL

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT^2

ROCK QUALITY DESIGNATION & RECOVERY
RQD% – — – REC% ———

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL — ENGLISH UNITS

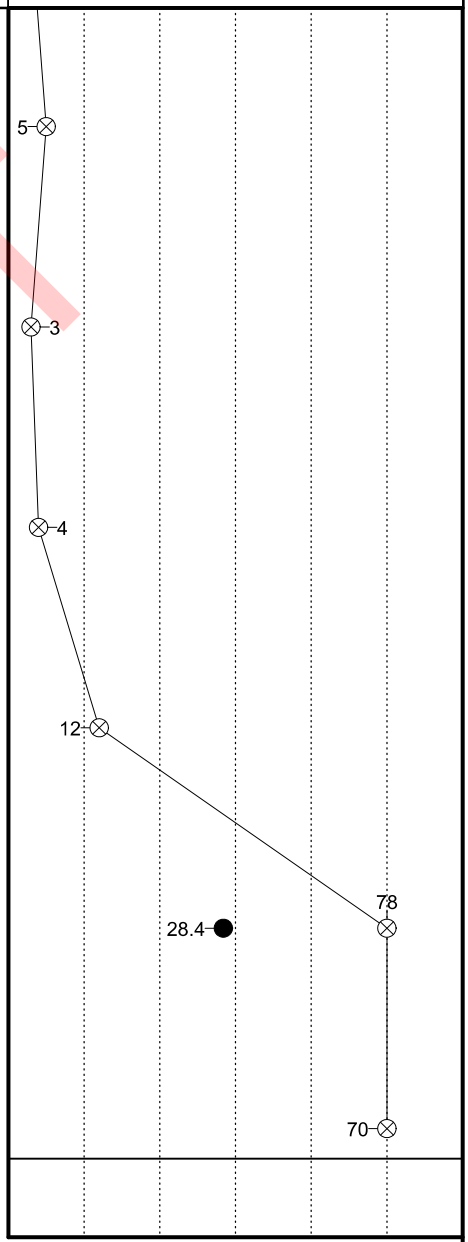
BOTTOM OF CASING | LOSS OF CIRCULATION

SURFACE ELEVATION 8 feet (approx.)

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
65	S-16	SS	18	18		-55	3 2 3
70	S-17	SS	18	18		-60	2 1 2
	S-18	SS	18	18		-65	2 3 1
75						-70	
80	S-19	SS	18	18		-75	13 6 6
85	S-20	SS	18	18		-80	10 48 30
90	S-21	SS	18	18			13 30 40

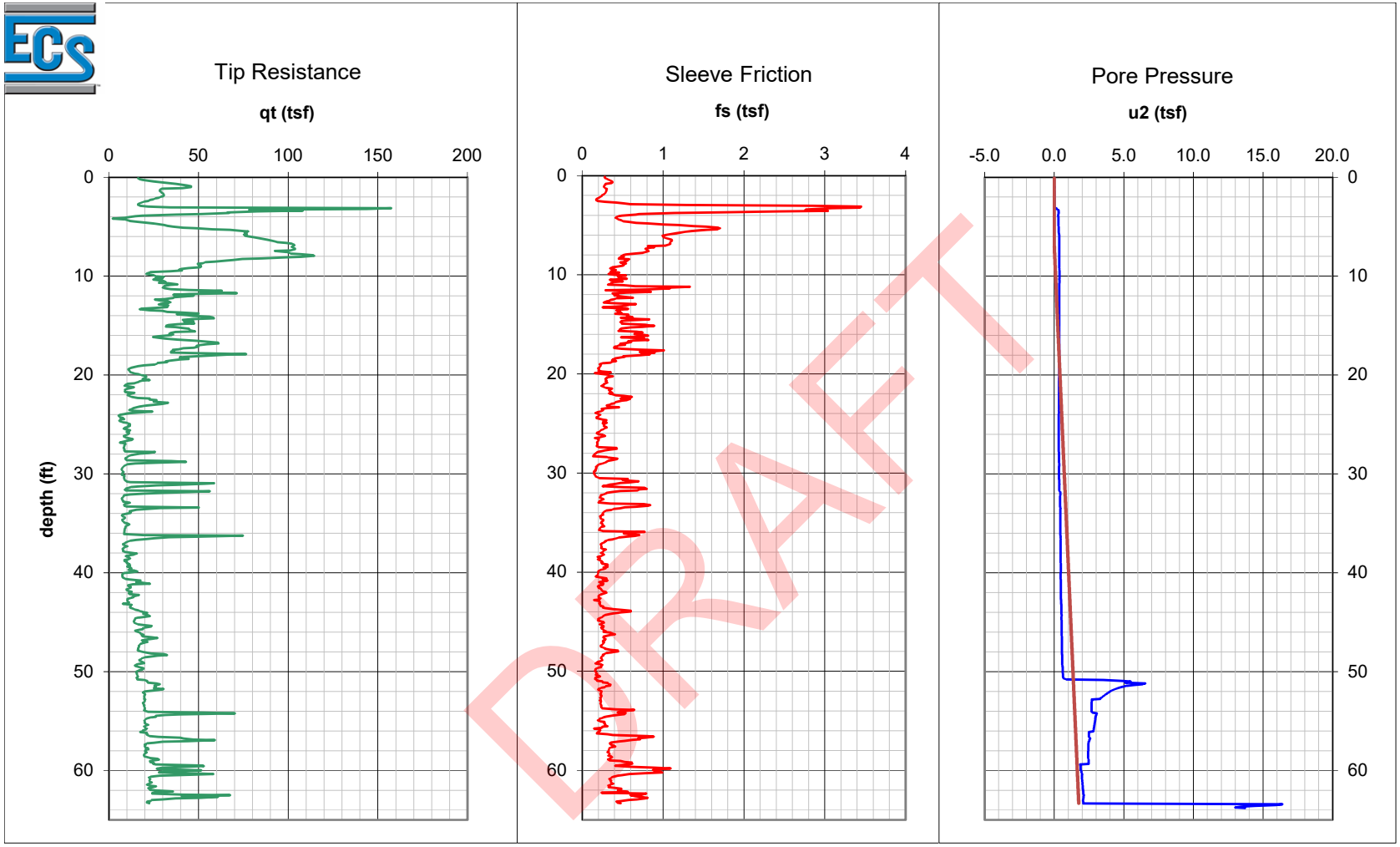
(SP-SC) SAND WITH CLAY, light gray, wet, very loose to very dense

END OF BORING @ 90.00'

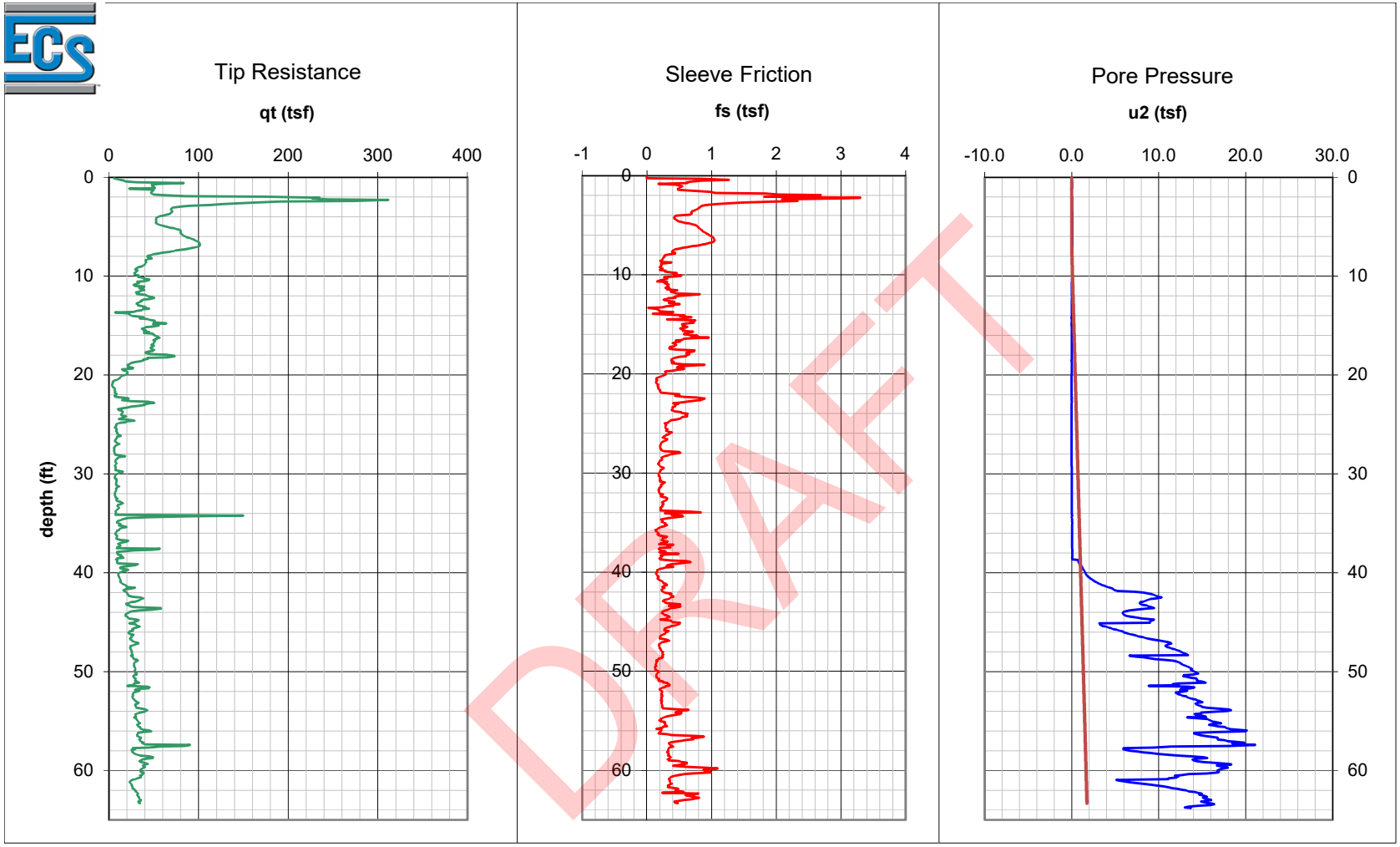


THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

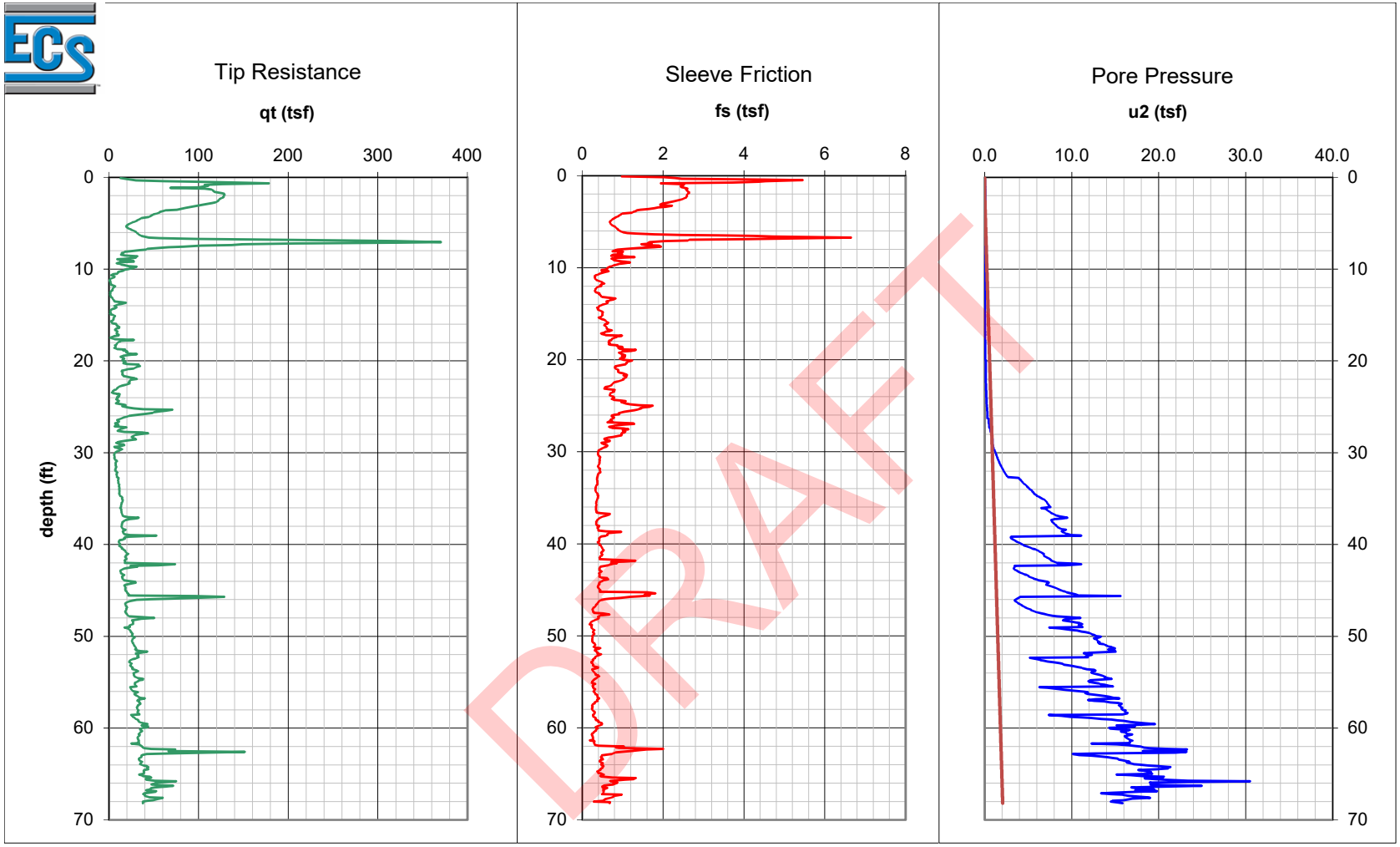
WL 6.50 WS ☐ WD ☐	BORING STARTED 02/11/19	CAVE IN DEPTH
WL(SHW) WL(ACR)	BORING COMPLETED 02/11/19	HAMMER TYPE Auto
WL	RIG ATV FOREMAN Anthony	DRILLING METHOD Mud Rotary



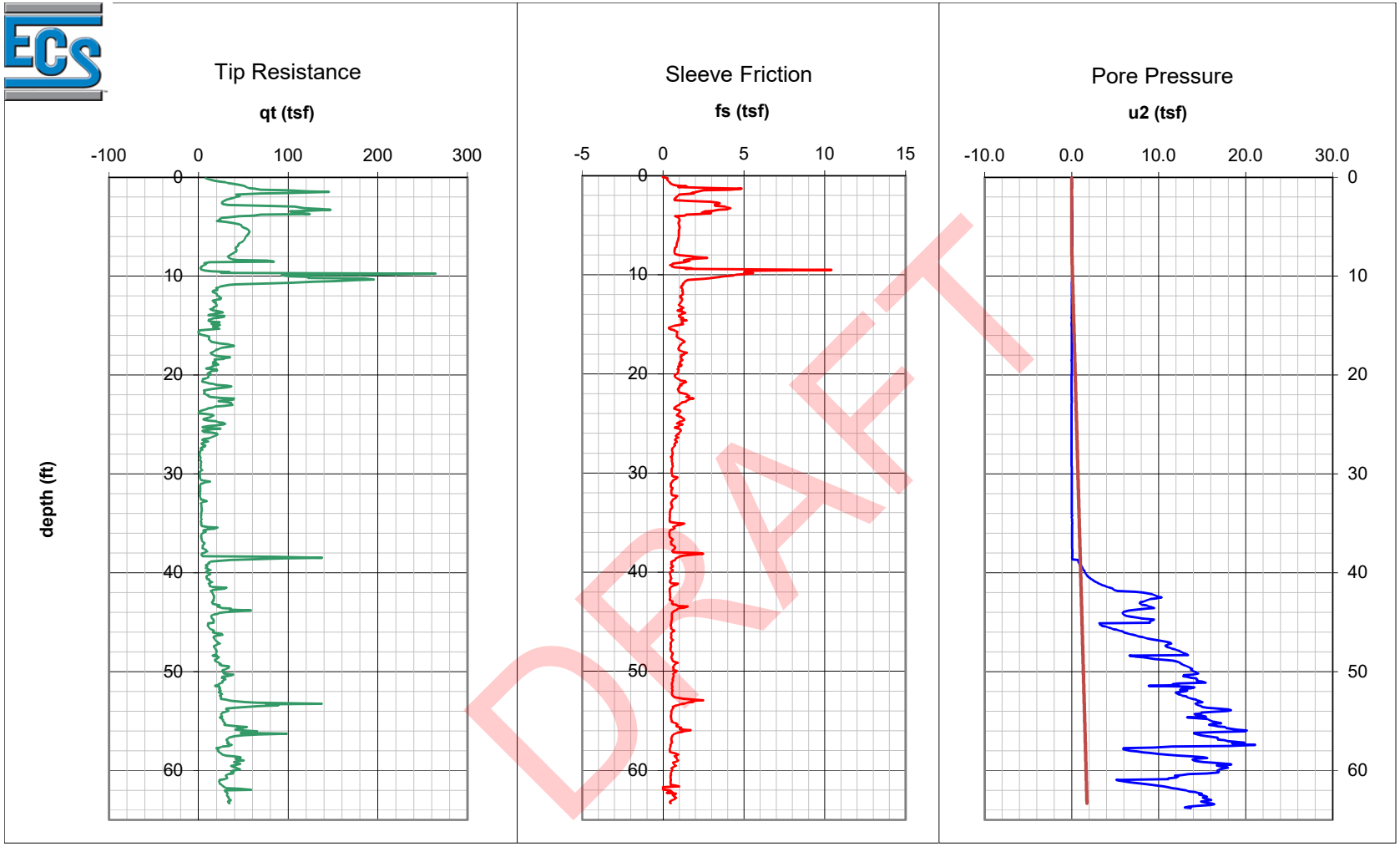
Project Name: Fort Myer River District (FKA Fort Myers Methodist Apartments) Sounding #: CPT-1
Location: 1st St. and Fowler St., Fort Myers, FL Ground EL (ft): 7
Date: 2/20/2019



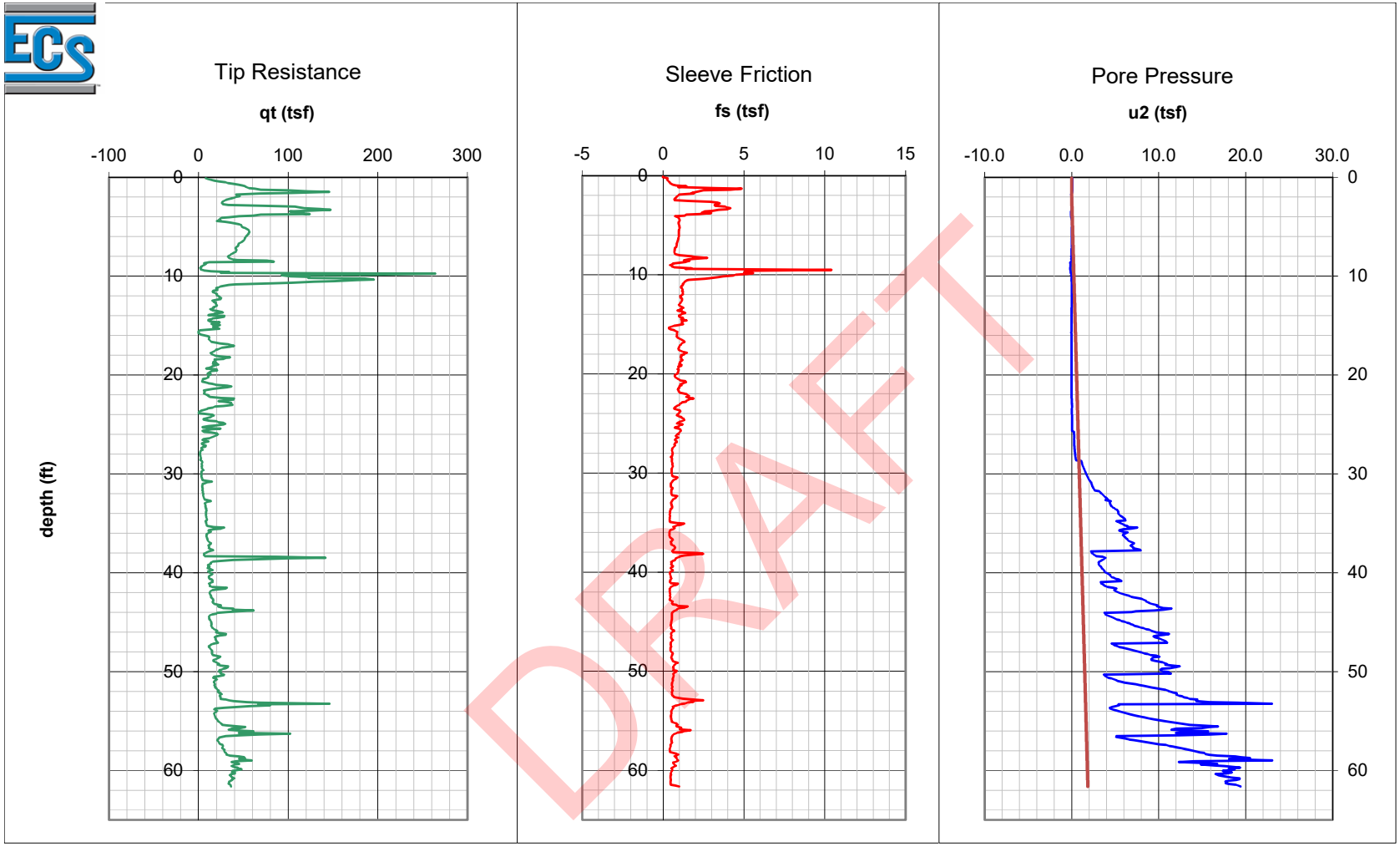
Project Name: Fort Myer River District (FKA Fort Myers Methodist Apartments) Sounding #: CPT-2
Location: 1st St. and Fowler St., Fort Myers, FL Ground EL (ft): 7
Date: 2/20/2019



Project Name: Fort Myer River District (FKA Fort Myers Methodist Apartments) Sounding #: CPT-3
Location: 1st St. and Fowler St., Fort Myers, FL Ground EL (ft): 7
Date: 2/20/2019



Project Name: Fort Myer River District (FKA Fort Myers Methodist Apartments) Sounding #: CPT-4
Location: 1st St. and Fowler St., Fort Myers, FL Ground EL (ft): 7
Date: 2/20/2019



Project Name: Fort Myer River District (FKA Fort Myers Methodist Apartments) Sounding #: CPT-5
Location: 1st St. and Fowler St., Fort Myers, FL Ground EL (ft): 7
Date: 2/20/2019

APPENDIX C – Laboratory Testing

Laboratory Test Results Summary D-1 and E-1
Laboratory Test Results Summary B-1 through B-4
Laboratory Test Results Summary A-1 through A-4

Laboratory Testing Summary								
Sample Source	**Sample Number**	**Depth (feet below ground surface)**	**Percent Passing No. 200 Sieve**	**Natural Moisture**	**Liquid Limit**	**Plastic Limit**	**Plasticity Index**	**USCS**
D-1	S-2	2 to 4	8.5%	16.8%				SP-SM
D-1	S-6	13.5 to 15	43.0%	68.1%				SM
D-1	S-10	33.5 to 35	34.2%	26.7%				SM
D-1	S-11	2 to 4	30.1%	35.5%				SC
E-1	S-3	4 to 6	19.9%	18.1%				SC

Project No: 60: 1303

Project Name: Church Site Multi-Family

PM JY

PE MR

Laboratory Testing Summary

Sample Source	Sample Number	Depth (feet)	MC[1] (%)	Soil Type[2]	Atterberg Limits[3]			Percent Passing No. 200 Sieve[4]	Moisture - Density (Corr.)[5]		CBR Value[6]	Other
					LL	PL	PI		Maximum Density (pcf)	Optimum Moisture (%)		
B-01												
	S-5	8.00 - 10.00	23.1	ML				72.6				
B-02												
	S-6	13.50 - 15.00	25.9	ML				56.1				
B-03												
	S-5	8.00 - 10.00	16.3	ML				19.5				
	S-9	28.50 - 30.00	36.4	CL/ML	25	17	8					
B-04												
	S-5	13.50 - 15.00	25.5	SP-SM				17.9				
	S-8	28.50 - 30.00	36.8	CL/ML	25	19	6					

Notes: 1. ASTM D 2216, 2. ASTM D 2487, 3. ASTM D 4318, 4. ASTM D 1140, 5. See test reports for test method, 6. See test reports for test method

Definitions: MC: Moisture Content, Soil Type: USCS (Unified Soil Classification System), LL: Liquid Limit, PL: Plastic Limit, PI: Plasticity Index, CBR: California Bearing Ratio, OC: Organic Content (ASTM D 2974)

Project No.	1008
Project Name:	Ft. Myers Methodist Apartments
PM:	Kurt Brown
PE:	Paul Benvie
Printed On:	Thursday, April 26, 2018

ECS TEXAS, LLP
2120 Denton Drive, Suite 105-104
Austin, TX 78758
Phone: (512) 837-8005
Fax: (512) 837-8221

Laboratory Testing Summary

Sample Source	Sample Number	Depth (feet)	MC[1] (%)	Soil Type[2]	Atterberg Limits[3]			Percent Passing No. 200 Sieve[4]	Moisture - Density (Corr.)[5]		CBR Value[6]	Other
					LL	PL	PI		Maximum Density (pcf)	Optimum Moisture (%)		
A-3												
	S-8	23.5 - 25.0	19.9	SC				13.7				
	S-14	53.5 - 55.0	41.2	SC				17.3				
A-4												
	S-6	13.5 - 15.0	18.5	SC				20.7				
	S-20	83.5 - 85.0	28.4	SP-SC				9.1				

Notes: 1. ASTM D 2216, 2. ASTM D 2487, 3. ASTM D 4318, 4. ASTM D 1140, 5. See test reports for test method, 6. See test reports for test method

Definitions: MC: Moisture Content, Soil Type: USCS (Unified Soil Classification System), LL: Liquid Limit, PL: Plastic Limit, PI: Plasticity Index, CBR: California Bearing Ratio, OC: Organic Content (ASTM D 2974)

Project No. 60:1089
Project Name: Fort Myer River District (FKA Fort Myers Methodist Apartments)
PM: Veronica De Freitas
PE: Jose Gomez
Printed On: Wednesday, February 27, 2019

ECS FLORIDA, LLC
13850 Treeline Avenue, Suite 4
Fort Myers, FL 33913
Phone: (239) 236-7511
Fax: (239) 236-0972

APPENDIX D – PressuremeterTesting

Pressuremeter Test Outputs

Engineering Consulting Services
Fort Myers, Florida
Automated Pressuremeter Summary

Date: 1/26/2021

Project Number:

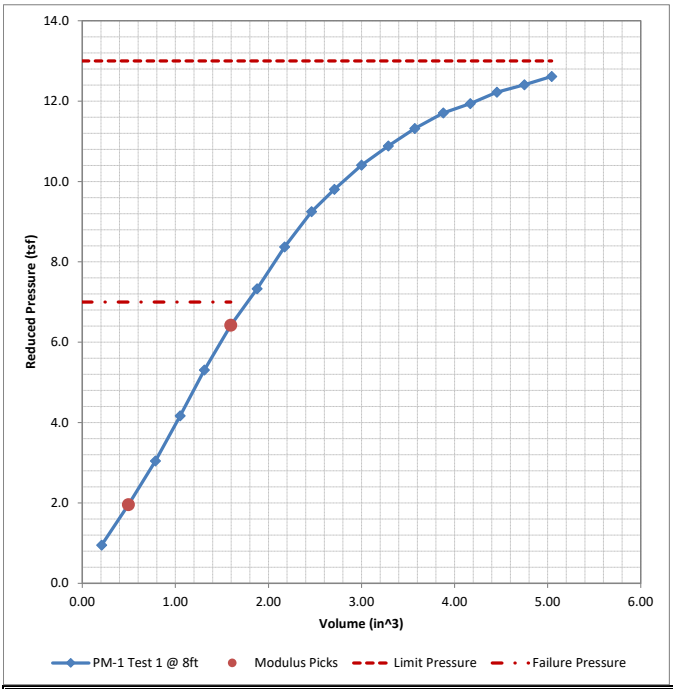
Project Name: Church Site

Project Engineer: MWR

Principal Engineer: DS

Location	Test	Depth (ft)	Test EL. (ft)	USCS	Pf (tsf)	Pl (tsf)	Ep (tsf)	Er	N-SPT	Ep/Pl	Ep/N	Pl/Pf
PM-1	1	8	0	-	9.50	13.00	134.55	-	7	10.35	19.22	1.37
PM-2	1	18	-10	-	6.00	7.00	68.18	-	3	9.74	22.73	1.17
PM-2	1	24	-16	-	3.20	4.00	44.91	-	5	11.23	8.98	1.25

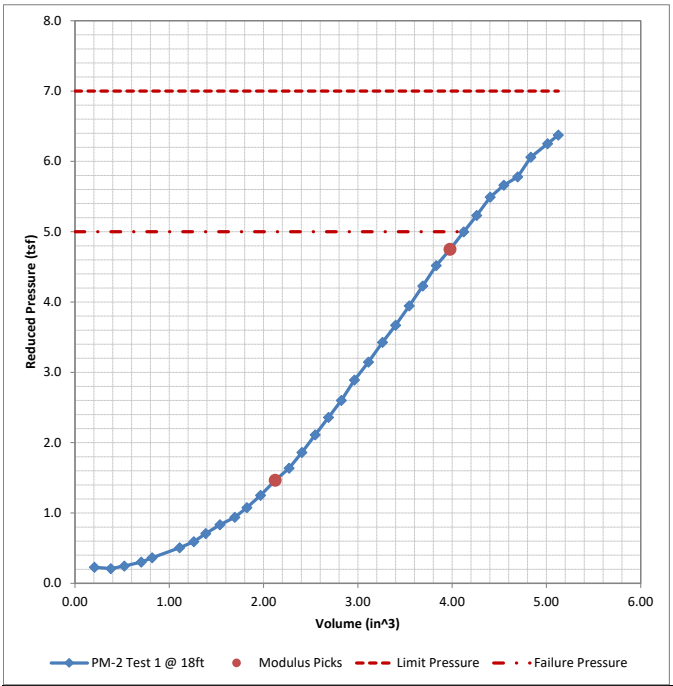
Membrane Calibration		Volume Calibration	
Pressure (kPa)	**Volume (cm^3)**	**Pressure (kPa)**	**Volume (cm^3)**
8.289912	0.569571	203.479649	24.698677
27.884249	5.851049	400.176642	29.125799
41.072745	10.744183	588.960538	31.688869
52.753984	15.947993	798.092398	33.397583
64.435223	20.401004	1004.963374	34.717952
73.855577	25.682482	1199.399482	36.11599
84.406373	30.34261	1417.574882	37.048016
89.681772	35.416971	1616.53276	37.824704
96.464426	40.361885	1821.142851	38.679061
102.493453	45.151461	2014.448516	39.455749
105.884781	50.277601		
108.145666	55.067177		
114.92832	60.141538		
116.812391	64.827556		
119.826905	69.953696		
125.102303	74.820941		
129.247259	79.765854		
133.0154	84.736657		



Pressure (tsf)	Volume (in^3)
0.953	0.208
1.958	0.496
3.048	0.785
4.170	1.051
5.309	1.311
6.421	1.595
7.333	1.879
8.372	2.174
9.252	2.464
9.804	2.708
10.405	3.000
10.885	3.289
11.317	3.572
11.705	3.879
11.937	4.168
12.222	4.454
12.405	4.751
12.614	5.043

Poisson Ratio	0.333
Pressure 1	1.958
Pressure 2	6.421
Volume 1	0.496
Volume 2	1.595
E_p (tsf)	134.548
Limit Pressure (tsf)	13.000
Failure Pressure (tsf)	7.000
N_SPT	7

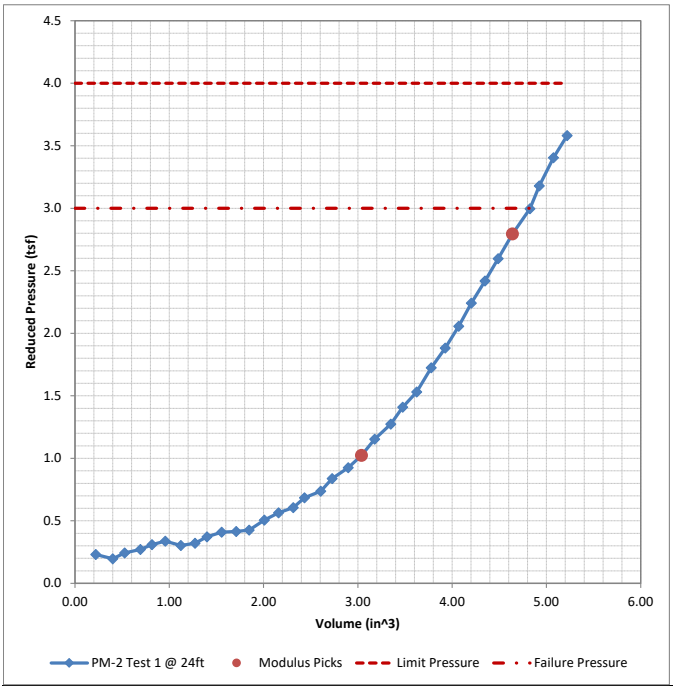
Project Name:	Church Site		
Boring #:	PM-1	Test EL (ft):	0
		Test Depth (ft):	8
Date:	1/26/2021	Project Number:	0
Modulus (tsf):	134.55	Limit Pressure (tsf):	13
Failure Pressure (tsf):	7	N_spt	7
Notes:			



Project Name:	Church Site		
Boring #:	PM-2	Test EL (ft):	-10
		Test Depth (ft):	18
Date:	1/26/2021	Project Number:	0
Modulus (tsf):	68.18	Limit Pressure (tsf):	7
Failure Pressure (tsf):	5	N_spt	3
Notes:			

Pressure (tsf)	Volume (in^3)
0.229	0.206
0.210	0.380
0.245	0.522
0.303	0.703
0.364	0.819
0.507	1.109
0.594	1.261
0.708	1.387
0.833	1.537
0.940	1.694
1.077	1.823
1.251	1.968
1.465	2.124
1.638	2.270
1.861	2.407
2.112	2.548
2.361	2.689
2.601	2.825
2.891	2.965
3.146	3.112
3.427	3.261
3.669	3.400
3.946	3.544
4.230	3.688
4.518	3.831
4.751	3.978
4.999	4.122
5.232	4.260
5.492	4.403
5.663	4.549
5.779	4.695
6.059	4.834
6.253	5.012
6.375	5.125

Poisson Ratio	0.333
Pressure 1	1.465
Pressure 2	4.751
Volume 1	2.124
Volume 2	3.978
E_p (tsf)	68.183
Limit Pressure (tsf)	7.00
Failure Pressure (tsf)	5.00
N_SPT	3



Pressure (tsf)	Volume (in^3)
0.231	0.220
0.197	0.400
0.243	0.527
0.272	0.694
0.310	0.817
0.338	0.957
0.303	1.122
0.320	1.273
0.372	1.399
0.409	1.555
0.415	1.710
0.426	1.848
0.507	2.009
0.564	2.159
0.606	2.315
0.684	2.434
0.737	2.606
0.838	2.728
0.925	2.897
1.023	3.039
1.153	3.179
1.274	3.349
1.410	3.475
1.531	3.625
1.725	3.778
1.882	3.927
2.056	4.070
2.241	4.204
2.418	4.348
2.597	4.488
2.795	4.639
2.996	4.825
3.179	4.925
3.405	5.074
3.581	5.219

Poisson Ratio	0.333
Pressure 1	1.023
Pressure 2	2.795
Volume 1	3.039
Volume 2	4.639
E_p (tsf)	44.909
Limit Pressure (tsf)	4.00
Failure Pressure (tsf)	3.00
N_SPT	5

Project Name:	Church Site		
Boring #:	PM-2	Test EL (ft):	-16
		Test Depth (ft):	24
Date:	1/26/2021	Project Number:	0
Modulus (tsf):	44.91	Limit Pressure (tsf):	4
Failure Pressure (tsf):	3	N_spt	5
Notes:			