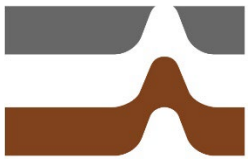
Preliminary Subsurface Soil Exploration and
Geotechnical Engineering Evaluation
Proposed Residential Development
Avenue A Wahneta W
Winter Haven, Polk County, Florida



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Ardaman & Associates, Inc.

Geotechnical, Environmental and
Materials Consultants

January 19, 2024
Ardaman File No. 23-6456

Stewart Capital Lending
1101 Miranda Lane, Suite 131
Kissimmee, Florida 34741

Attention: Mr. Glen Stewart, CEO

Subject: Preliminary Subsurface Soil Exploration and
Geotechnical Engineering Evaluation
Proposed Residential Development
Avenue A Wahneta W
Winter Haven, Polk County, Florida

Dear Mr. Stewart:

As requested and authorized, we have completed a preliminary shallow subsurface soil exploration for the subject project. The purposes of performing this exploration were to explore soil stratigraphy and groundwater levels at selected boring locations and to preliminarily evaluate the compatibility of the conditions encountered with the proposed development. In addition, we have preliminarily estimated the normal seasonal high groundwater level at the boring locations. This report documents our findings.

We understand that future development of the site is planned to include a residential development with single family homes, paved parking/drive areas and a stormwater pond.

SITE LOCATION AND SITE DESCRIPTION

The site for the proposed residential development is located on the west side of Avenue A Wahneta W, in Winter Haven, Polk County, Florida (Section 17, Township 29 South, Range 26 East). The general site location is shown superimposed on the Eloise, Florida U.S.G.S. quadrangle map presented on Figure 1.

The site is currently developed as a blueberry farm. The northern portion of the property is currently fallow and covered with thick grass and vegetation.

REVIEW OF SOIL SURVEY MAPS

Based on information obtained online from the Web Soil Survey as operated by the U.S. Department of Agriculture Natural Resources Conservation Services, the site is located in an area mapped as the “Samsula muck, frequently flooded”, “Smyrna and Myakka fine sands”, “Ona-Ona, wet sand”, “Adamsville fine sand” and “Felda fine sand” soil series.

The "Samsula muck" soil series consists of organic soil in swamps and marshes. The internal drainage of the "Samsula muck" is very poor and the soil permeability is rapid throughout. According to the Soil Survey, the seasonal high water table for the "Samsula muck" soil series is typically at or above the natural ground surface.

The "Smyrna and Myakka sand" soil series consists of nearly level soil occurring on broad areas on flatwoods. The internal drainage of the "Smyrna and Myakka sand" is poor and the soil permeability is moderate or moderately rapid in the subsoil. According to the Soil Survey, the seasonal high water table for the "Smyrna and Myakka sand" soil series is typically within 12 inches of the natural ground surface.

The "Ona-Ona, wet, fine sand" soil series consists of nearly level soil occurring on broad areas on flatwoods. The internal drainage of the "Ona-Ona, wet, fine sand" is somewhat poor and the soil permeability is rapid throughout. According to the Soil Survey, the seasonal high water table for the "Ona-Ona, wet, fine sand" soil series is typically within 12 inches of the natural ground surface.

The “Adamsville fine sand” soil series consists of sandy soils on low ridges on flatwoods and in low areas in uplands. The internal drainage of the “Adamsville fine sand” soil series is somewhat poor and the soil permeability is rapid. According to the Soil Survey, the seasonal high groundwater table for the “Adamsville fine sand” soil series is at a depth of 24 to 40 inches below the natural ground surface.

The “Felda fine sand” soil series consists of sandy soils in sloughs or low hammocks on flatwoods. The internal drainage of the “Felda fine sand” soil series is poor and the soil permeability is moderately rapid. According to the Soil Survey, the seasonal high groundwater table for the “Felda fine sand” soil series is within 12 inches of the natural ground surface.

Please refer to Figure 2 for the mapped locations of individual soil units.

FIELD EXPLORATION PROGRAM

SPT Borings

The field exploration program included performing six Standard Penetration Test (SPT) borings. The SPT borings were advanced to depths of 15 and 30 feet below the existing ground surface generally using the methodology outlined in ASTM D-1586. A summary of this field procedure is included in the Appendix.

Soil samples recovered during performance of the borings were visually classified in the field and representative portions of the samples were transported to our laboratory in sealed sample jars.

The groundwater level at each of the boring locations was measured during drilling. The borings were backfilled with soil cuttings upon completion.

Test Locations

The approximate locations of the borings are schematically illustrated on a an aerial photograph of the site shown on Figure 2. These locations were determined in the field by Global Positioning System (GPS) utilizing hand-held GPS equipment and coordinates obtained from Google Earth Pro. Boring locations should be considered accurate only to the degree implied by the method of locating used.

LABORATORY PROGRAM

Representative soil samples obtained during our field sampling operation were packaged and transferred to our laboratory for further visual examination and classification. The soil samples were classified using visual-manual procedures in general accordance with the Unified Soil Classification System (ASTM D-2488). The resulting soil descriptions are shown on the soil boring profiles presented on Figure 3.

GENERAL SUBSURFACE CONDITIONS

General Soil Profile

The results of the field exploration and laboratory programs are graphically summarized on the soil boring profiles presented on Figure 3. The stratification of the boring profiles represents our interpretation of the field boring logs and the results of laboratory examinations of the recovered samples. The stratification lines represent the approximate boundary between soil types. The actual transitions may be more gradual than implied.

The results of the borings indicate the following general soil profile:

Depth Below Ground Surface (feet)		Description
From	To	
0	6 – 15	Very loose to medium dense fine sand (SP), fine sand with silt (SP-SM) and silty fine sand (SM) with occasional partially cemented hardpan-type soils.
6 – 15	30	Loose to medium dense fine sand with clay (SP-SC), clayey fine sand (SC) and silty clayey fine and (SM/SC)

The above soil profile is outlined in general terms only. Please refer to Figure 3 for soil profile details.

Groundwater Level

The groundwater level was measured in the boreholes during drilling. As shown on Figure 3, groundwater was encountered at depths that ranged from 2.8 to 4.5 feet below the existing ground surface on the dates indicated. Fluctuation in groundwater levels should be anticipated throughout the year primarily due to seasonal variations in rainfall and other factors that may vary from the time the borings were conducted.

PRELIMINARY NORMAL SEASONAL HIGH GROUNDWATER LEVEL

The groundwater level is affected by a number of factors. The amount of rainfall and the drainage characteristics of the soils, the land surface elevation, relief points such as drainage ditches, lakes, rivers, swamp areas, etc., and distance to relief points are some of the more important factors influencing the groundwater level.

The normal seasonal high groundwater level each year is the level in the August-September period at the end of the rainy season during a year of normal (average) rainfall. The water table elevations associated with a higher than normal rainfall and in the extreme case, flood, would be higher to much higher than the normal seasonal high groundwater level, and could occur at times outside of the August-September period. The normal high water levels would more approximate the normal seasonal high groundwater levels.

Based on our interpretation of the site conditions using our boring logs, we preliminarily estimate the normal seasonal high groundwater level at the boring locations to be approximately 1½ feet above the groundwater levels measured at the time of our field exploration. Groundwater may perch temporarily at higher levels on top of the clayey soil during periods of heavy and/or prolonged rainfall.

PRELIMINARY ENGINEERING EVALUATION

General

It is our opinion that with typical site preparation procedures, the soils as encountered during this preliminary exploration are compatible with the proposed residential development.

We note that according to the Web Soil Survey for Polk County, Florida, as operated by the U.S. Department of Agriculture Natural Resource Conservation Service, a portion of the northwest quadrant of the site is mapped as having organic mucky sand. Deleterious organics/muck were

not encountered in the borings performed, however deleterious organics/muck may exist at unexplored locations.

The following are discussions relative to specific anticipated construction.

Structures

The results of our preliminary exploration indicate that, with proper site preparation (i.e., stripping, grubbing, proof-rolling, filling, compacting, etc.), the existing soils, are generally suitable for supporting the proposed residential buildings. Spread footings should provide an adequate foundation system for the structures.

Because of the potential for large total and differential settlements, deleterious organics/muck are not suitable for providing shallow foundation support and should be completely removed (demucked) and backfilled with suitable compacted fill soils from beneath any proposed structure, hardscape or pavement that cannot tolerate greater than typical settlement.

The soils beneath the proposed structures should be further evaluated prior to final design when the foundation loads are available. At that time, foundation design and site preparation recommendations can be prepared.

Pavement

With typical site preparation (i.e., stripping, grubbing, filling, compacting, etc.), the soils as encountered in the borings should be suitable foundation soils for the proposed pavements.

In designing the site grades in pavement areas, a minimum clearance of 18 inches should be maintained between the bottom of limerock base and the seasonal high groundwater table. A minimum separation of 12 inches should be maintained if soil cement or crushed concrete base is utilized.

Suitability of On-Site Soils for Fill

The fine sand and fine sand with silt (Strata 1 and 2 without roots and/or organics on Figure 4) should be suitable to serve as fill soils in structure and pavement areas and, with proper moisture control, should densify using conventional compaction equipment. Soils with more than 12 percent passing the No. 200 sieve can be used in some applications, but will be more difficult to compact due to their inherent nature to retain soil moisture.

The clayey fine sand, fine sand with clay, and silty fine sand (Strata 3, 4 and 5 on Figure 3) having less than about 25 percent fines is poor quality fill soil because it is very difficult to moisture condition and compact and is often considered unsuitable for use as fill, especially when working

during rainy periods. Soils having more than about 25 percent fines is unsuitable for use as fill because of the extreme difficulty in moisture conditioning and compacting these soils.

Stormwater Ponds

The fine sand and fine sand with silt (Strata 1 and 2 on Figure 3) are generally considered to be relatively permeable. The silty fine sand, fine sand with clay and clayey fine sand (Strata 3, 4 and 5 on Figures 3 through 5) are likely less permeable than the fine sand and fine sand with silt, and should be considered to be aquitards for retention pond drawdown evaluation.

CLOSURE

The preliminary geotechnical evaluation submitted herein is based on the data obtained from the soil borings presented on Figure 3. This report does not reflect any variations which may occur adjacent to or between the borings. The nature and extent of the variations between the borings may not become evident until during further exploration and/or construction. Additional subsurface exploration and geotechnical engineering evaluation should be performed prior to final design, and after a site plan is available in order to plan the additional boring locations.

This preliminary study is based on a relatively shallow exploration and is not intended to be an evaluation for sinkhole potential. This study does not include an evaluation of the environmental (ecological or hazardous/toxic material related) condition of the site and subsurface.

This report has been prepared for the exclusive use of Stewart Capital in accordance with generally accepted geotechnical engineering practices for the purpose of preliminary exploration and geotechnical engineering evaluation for the proposed development. No other warranty, expressed or implied, is made.

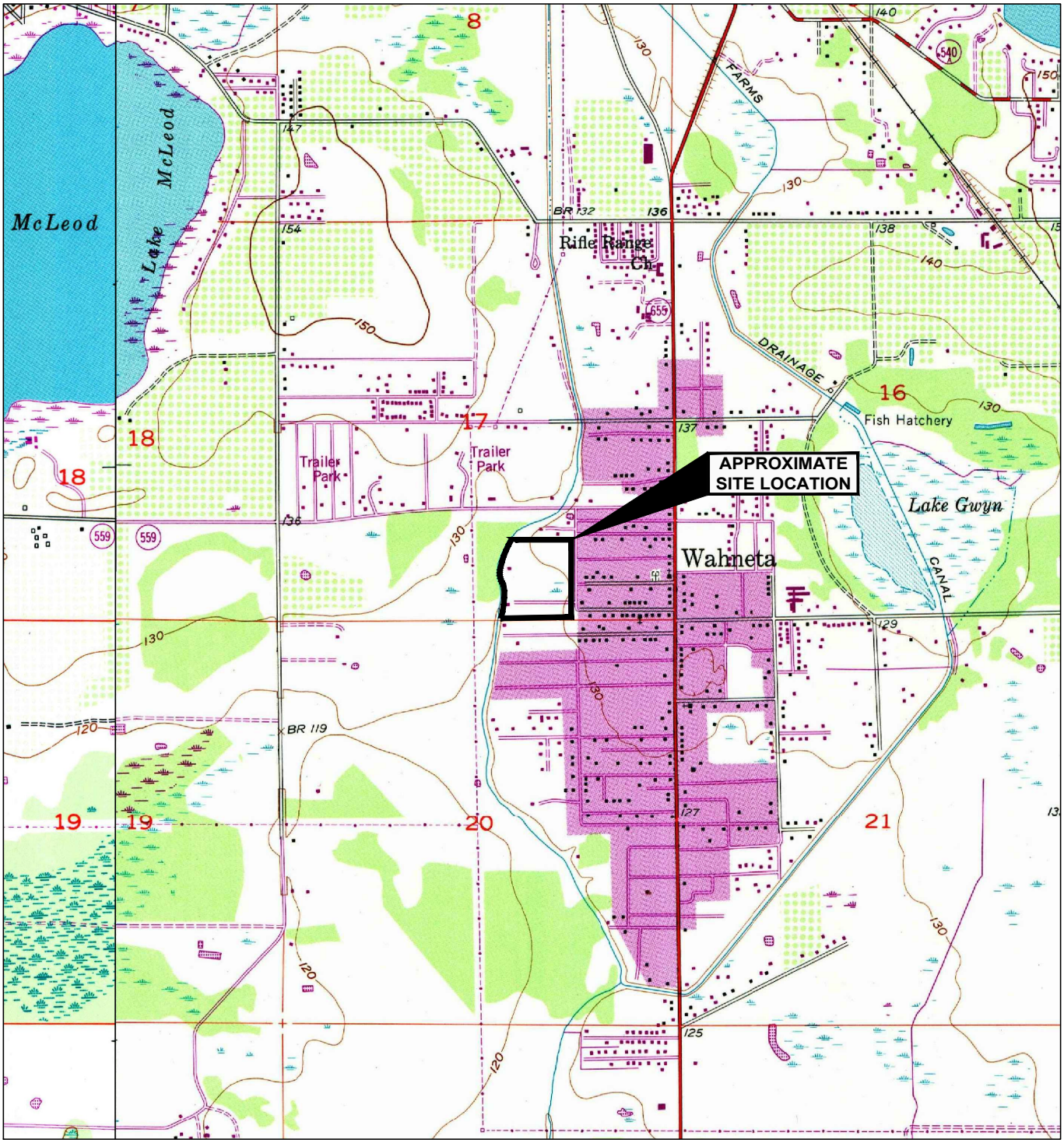
We are pleased to be of assistance to you on this phase of the project. When we may be of further service to you or should you have any questions, please contact us.

Very truly yours,
ARDAMAN & ASSOCIATES, INC.
Florida Registry 5950

Charles H. Cunningham, P.E.
Vice President

Zan C. Bates, P.E.
Senior Engineer

CTJ/ZCB/bls/lms
23-60-6456 Stewart Capital Lending - Proposed Residential Development Avenue A Wahneta W Polk County.docx (Geo 2022)



SECTION 17
TOWNSHIP 29 SOUTH
RANGE 26 EAST

OBTAINED FROM U.S.G.S. QUAD MAP: ELOISE, FLORIDA 1955
(PHOTOREVISED 1987)

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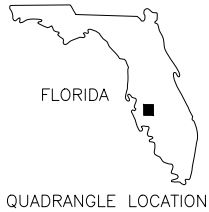

QUADRANGLE LOCATION

SITE LOCATION MAP

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

PRELIMINARY SUBSURFACE SOIL EXPLORATION
PROPOSED RESIDENTIAL DEVELOPMENT
AVENUE A WAHNETA W
POLK COUNTY, FLORIDA

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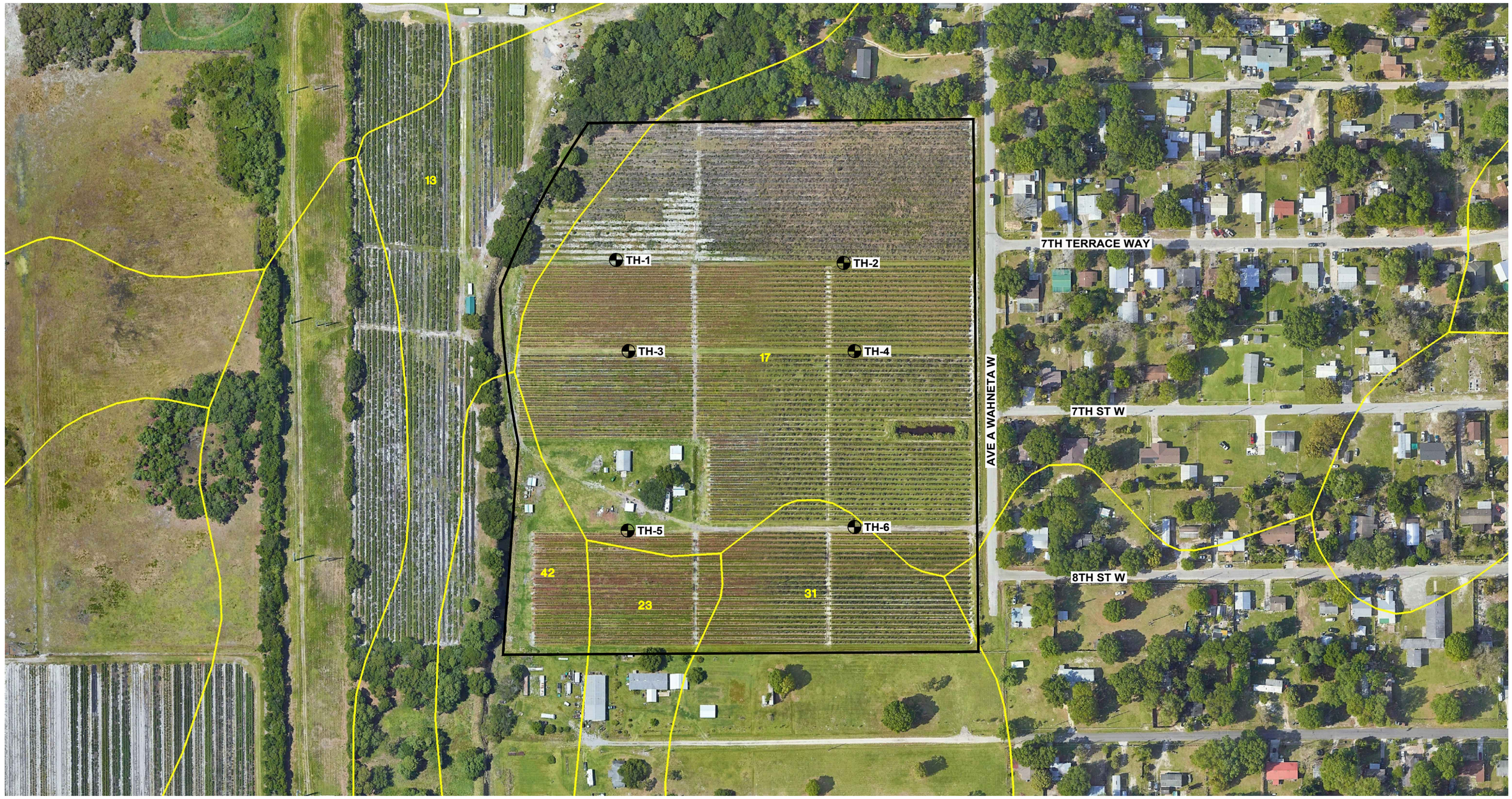

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0 100 200

SCALE: (FEET)

LEGEND

TH — STANDARD PENETRATION TEST (SPT) BORING LOCATION

NOTES:
1. AERIAL PHOTO OBTAINED FROM GOOGLE EARTH PRO, DATED 03/13/2022.
2. SOIL SURVEY INFORMATION OBTAINED FROM U.S. DEPARTMENT OF AGRICULTURAL, NATURAL RESOURCES CONSERVATION SERVICE, DATED 08/28/07.

SOIL LEGEND

13 - SAMSULA MUCK, FREQUENTLY PONDED, 0 TO 1 PERCENT SLOPES

17 - SMYRNA AND MYAKKA FINE SANDS

23 - ONA-ONA, WET, FINE SAND, 0 TO 2 PERCENT SLOPES

31 - ADAMSVILLE FINE SAND, 0 TO 2 PERCENT SLOPES

42 - FELDA FINE SAND

BORING LOCATION PLAN

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

PRELIMINARY SUBSURFACE
SOIL EXPLORATION
PROPOSED RESIDENTIAL DEVELOPMENT
AVENUE A WAHNETA W
POLK COUNTY, FLORIDA

DRAWN BY: BLS		DATE: 01/15/24
FILE NO. 23-6456	APPROVED BY: Zan C. Bates, P.E.	FIGURE: 2

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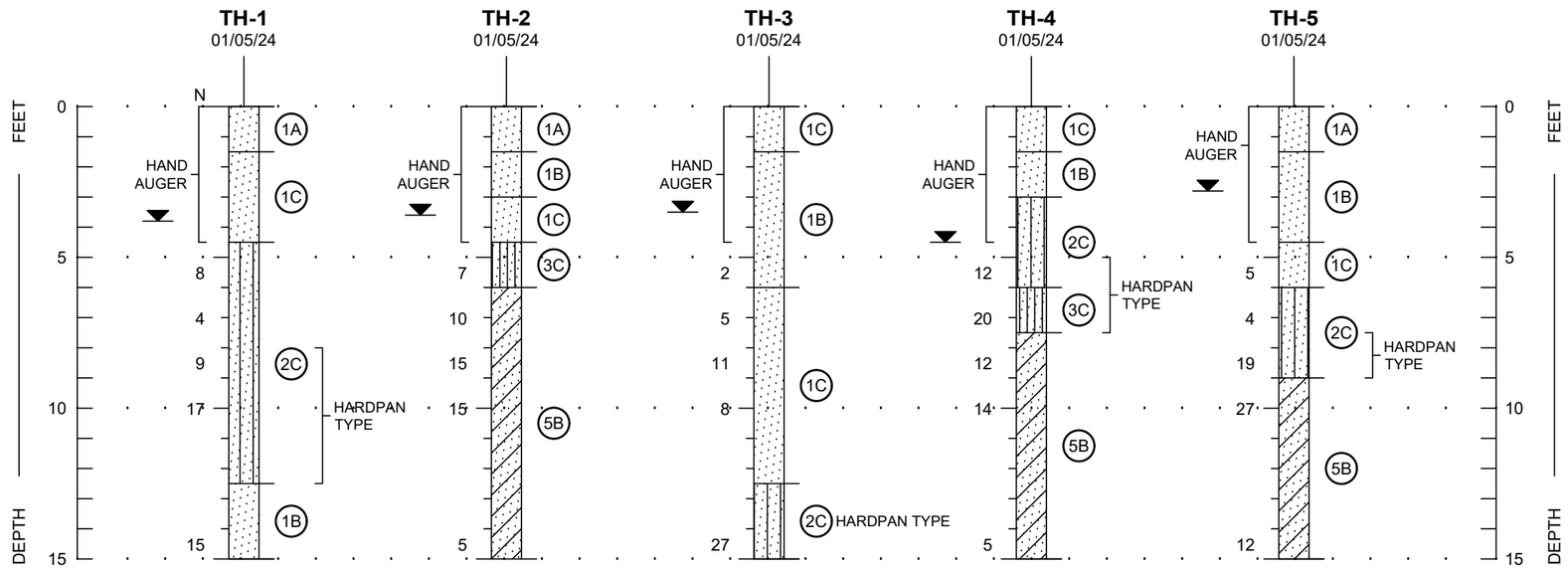

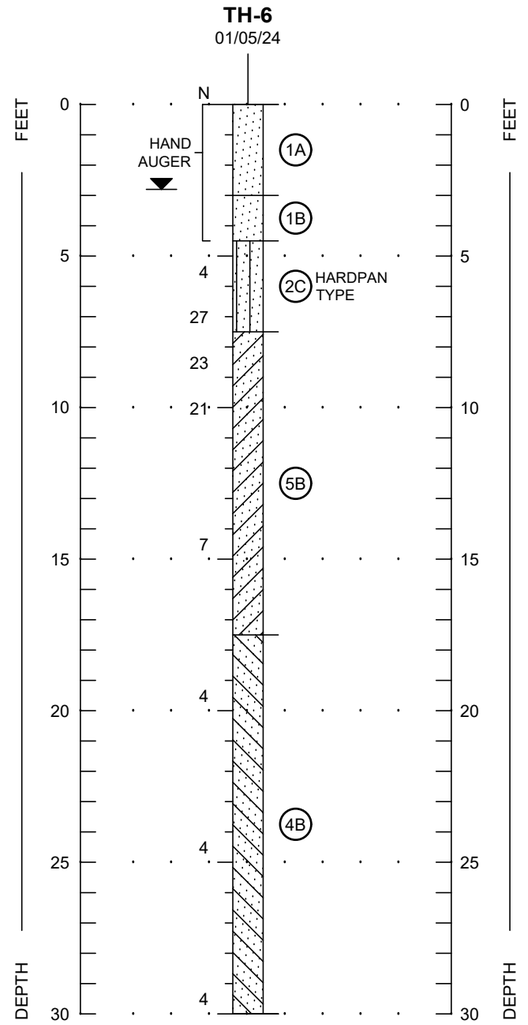

LEGEND

SOIL DESCRIPTIONS

1. FINE SAND (SP)
2. FINE SAND WITH SILT (SP-SM)
3. SILTY FINE SAND (SM)
4. FINE SAND WITH CLAY (SP-SC)
5. CLAYEY FINE SAND (SC) TO SILTY CLAYEY FINE SAND (SM/SC)

COLORS

- A GRAYISH BROWN
- B LIGHT BROWN TO BROWN
- C REDDISH BROWN TO DARK REDDISH BROWN

GRANULAR MATERIALS-RELATIVE DENSITY	AUTOMATIC HAMMER SPT N-VALUE (BLOWS/FOOT)
VERY LOOSE	LESS THAN 3
LOOSE	3 TO 8
MEDIUM DENSE	8 TO 24
DENSE	24 TO 40
VERY DENSE	GREATER THAN 40

N STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT

GROUNDWATER LEVEL MEASURED ON DATE DRILLED

SP,SP-SM
SM,SC,CH — UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D-2487)

NOTE:
1. UPON COMPLETION OF EACH BORING, THE BOREHOLE WAS BACKFILLED WITH SOIL CUTTINGS.
2. ALL SPT BORINGS WERE PERFORMED USING AN AUTOMATIC HAMMER. AUTOMATIC HAMMER N-VALUES MAY BE CONVERTED TO EQUIVALENT SAFETY HAMMER N-VALUES BY MULTIPLYING BY 1.24.

WHILE THE BORINGS ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT THEIR RESPECTIVE LOCATIONS AND FOR THEIR RESPECTIVE VERTICAL REACHES, LOCAL VARIATIONS CHARACTERISTIC OF THE SUBSURFACE MATERIALS OF THE REGION ARE ANTICIPATED AND MAY BE ENCOUNTERED. THE BORING LOGS AND RELATED INFORMATION ARE BASED ON THE DRILLER'S LOGS AND VISUAL EXAMINATION OF SELECTED SAMPLES IN THE LABORATORY. THE DELINEATION BETWEEN SOIL TYPES SHOWN ON THE LOGS IS APPROXIMATE AND THE DESCRIPTION REPRESENTS OUR INTERPRETATION OF SUBSURFACE CONDITIONS AT THE DESIGNATED BORING LOCATIONS ON THE PARTICULAR DATE DRILLED.

GROUNDWATER ELEVATIONS SHOWN ON THE BORING LOGS REPRESENT GROUNDWATER SURFACES ENCOUNTERED ON THE DATES SHOWN. FLUCTUATIONS IN WATER TABLE LEVELS SHOULD BE ANTICIPATED THROUGHOUT THE YEAR.

SOIL BORING PROFILES

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

PRELIMINARY SUBSURFACE SOIL EXPLORATION
PROPOSED RESIDENTIAL DEVELOPMENT
AVENUE A WAHNETA W
POLK COUNTY, FLORIDA

DRAWN BY: BLS		DATE: 01/15/24
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APPENDIX

Standard Penetration Test Procedure

STANDARD PENETRATION TEST

The standard penetration test is a widely accepted test method of *in situ* testing of soils (ASTM D-1586), and Ardaman & Associates generally follows this test method. A 2-foot long, 2-inch O.D. split-barrel sampler attached to the end of a string of drilling rods is driven 18 or 24 inches into the ground by successive blows of a 140-pound hammer freely dropping 30 inches. The number of blows needed for each 6 inches of penetration is recorded. The sum of the blows required for penetration of the second and third 6-inch increments of penetration constitutes the test result or N-value. After the test, the sampler is extracted from the ground and opened to allow visual examination and classification of the retained soil sample. The N-value has been empirically correlated with various soil properties.

The tests are usually performed at 5-foot intervals. The test holes are advanced to the test elevations by rotary drilling with a cutting bit, using circulating fluid to remove the cuttings and hold the fine grains in suspension. The circulating fluid, which is a bentonitic drilling mud, is also used to keep the hole open below the water table by maintaining an excess hydrostatic pressure inside the hole. In some soil deposits, particularly highly pervious ones, flush-coupled casing must be driven to just above the testing depth to keep the hole open and/or prevent the loss of circulating fluid.

Representative split-spoon samples from the soils are brought to our laboratory in air-tight jars for further evaluation and testing, if necessary.