



ENGINEERING CONSULTANTS IN GEOTECHNICAL • ENVIRONMENTAL • CONSTRUCTION MATERIALS TESTING

August 18, 2025
Project No. 23-4862.08.2

Paul Constable
City of Ocala Engineering Dept.
1805 NE 30th Avenue. Bldg. 300
Ocala, FL 34470

Reference: Existing Tennis Courts, Martin Luther King Jr. Recreation Center
1510 NW 4th Street, Ocala, Florida
Geotechnical Site Evaluation

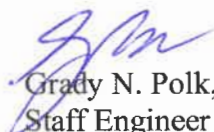
Dear Mr. Constable:

Geo-Technologies, Inc. (Geo-Tech) completed a geotechnical evaluation of the site as requested by you. Services were conducted in accordance with Geo-Tech Proposal No. 13656 dated June 29, 2025 and our recommendations presented in previously issued Geo-Tech Report Project No. 23-4862.28.1 dated June 5, 2023.

Our findings, evaluations and remediation recommendations are presented in the following report. Generally accepted soils and foundation engineering practices were employed in the preparation of this report.

Geo-Tech appreciates the opportunity to provide our services for this project. Should you have any questions regarding the contents of this report or if we may be of further assistance, please do not hesitate to contact the undersigned.

Sincerely,


Grady N. Polk, E.I.
Staff Engineer
GNP/CAH/ds



Purposes of Exploration

Purposes of this evaluation were to characterize subsurface soil conditions adjacent to the observed surface depressions as well as in subsurface anomalous areas detected in the previously performed ground penetrating radar (GPR) survey data and to provide applicable remediation recommendations based on our findings.

Site Description

The subject site is the existing tennis courts within the Martin Luther King Jr. Recreation Center at 1510 NW 4th Street in Ocala, Florida.

Geo-Tech observed pavement cracks within the tennis courts along with two (2) surface depressions outside of the fenced tennis court area. A surface depression approximately one (1) foot in diameter and five (5) inches deep was observed near the southwest corner of the existing tennis courts. In addition, a surface depression approximately three (3) feet in diameter and three (3) inches deep was observed along the south pavement edge of the tennis courts. Surface depressions are depicted on the Boring Location Map in Appendix IV.

Field Exploration Program

Field exploration services for this geotechnical site evaluation consisted of the following:

- Eight (8) standard penetration test (SPT) borings to depths ranging from approximately twenty-five (25) to forty-five (45) feet below site grade adjacent to the surface depressions and in subsurface anomalous areas detected in the previously performed GPR survey data (ASTM D1586). SPT borings were performed on August 7, 8 and 11, 2025.

Standard Penetration Test (SPT) Boring Description

SPT borings were performed in accordance with ASTM D1586. This SPT boring method consists of a split-barrel sampler driven into the subsurface soils by a one hundred and forty (140) pound hammer falling thirty (30) inches. The number of blows required to drive the sampler one (1) foot, after seating six (6) inches, is the designated resistance or N-Value and is an index to soil strength and consistency.

Soil samples recovered during the performance of our SPT borings were visually classified in the field. Representative soil samples were placed in containers and transported to our laboratory for further analysis.

Findings

General subsurface conditions found in borings are presented on the soil profiles in Appendix III. Horizontal lines depicted on the soil profiles designate approximate boundaries between soils.

The pavement section at boring locations B-1 thru B-6 consisted of asphalt ranging from approximately one (1) to two (2) inches thick.

Soils found beneath the pavement section in borings B-1 thru B-6 generally consisted of very loose to dense fine sand, very loose to medium dense clayey sand, soft to very stiff slightly sandy clay and/or limestone to the depths drilled.

Soils found in borings B-7 and B-8 generally consisted of very loose to loose fine sand, very loose to medium dense clayey sand, hard slightly sandy clay and/or limestone to the depths drilled.

Weight-of-hammer (WOH) zones were found in boring B-1 between depths of approximately fourteen (14) to fifteen (15), eighteen and one-half (18 ½) to twenty-three (23) and twenty-eight and one-half (28 ½) to forty (40) feet below existing site grade, in boring B-3 between depths of approximately ten (10) to twenty-six (26) feet below existing site grade, in boring B-6 between depths of approximately ten (10) to twelve (12), fifteen (15) to fifteen and one-half (15 ½), twenty-one and one-half (21 ½) to twenty-two (22), twenty-three and one-half (23 ½) to twenty-four (24) and twenty-five (25) to thirty-two (32) feet below existing site grade, in boring B-7 between depths of approximately twenty-eight and one-half (28 ½) to thirty (30), thirty-one (31) to thirty-seven and one-half (37 ½), thirty-nine and one-half (39 ½) to forty-one and one-half (41 ½) and forty-two and one-half (42 ½) to forty-three (43) feet below existing site grade and in boring B-8 between depths of approximately twenty-five (25) to twenty-eight and one-half (28 ½) feet below existing site grade.

Groundwater was not found within ten (10) feet below existing site grade in our borings at the time of drilling.

Evaluations

Geo-Tech observed indications of subsurface sinkhole type activity in boring B-1 between depths of approximately fourteen (14) to fifteen (15), eighteen and one-half (18 ½) to twenty-three (23) and twenty-eight and one-half (28 ½) to forty (40) feet below existing site grade, in boring B-3 between depths of approximately ten (10) to twenty-six (26) feet below existing site grade, in boring B-6 between depths of approximately ten (10) to twelve (12), fifteen (15) to fifteen and one-half (15 ½), twenty-one and one-half (21 ½) to twenty-two (22), twenty-three and one-half (23 ½) to twenty-four (24) and twenty-five (25) to thirty-two (32) feet below existing site grade, in boring B-7 between depths of approximately twenty-eight and one-half (28 ½) to thirty (30), thirty-one (31) to thirty-seven and one-half (37 ½), thirty-nine and one-half (39 ½) to forty-one and one-half (41 ½) and forty-two and one-half (42 ½) to forty-three (43) feet below existing site grade and in boring B-8 between depths of approximately twenty-five (25) to twenty-eight and one-half (28 ½) feet below existing site grade.

Most sinkhole activity in Florida is the result of subterranean erosion (raveling) of subsurface soils into solution channels and cavities in the underlying limestone. This erosion is generally caused by downward seepage of groundwater (recharge) into the limestone aquifer along with downward migration of subsurface soils. This erosion propagates upward toward the ground surface as a sinkhole develops and can cause WOH zones as found in borings B-1, B-3, B-6, B-7 and B-8. These zones can cause settlement to structures placed above them.

Remediation Recommendations

Geo-Tech recommends remediation of the subsurface sinkhole type activity found in borings B-1, B-3, B-6, B-7 and B-8 to consist of deep soil stabilization by means of low slump, sand-cement compactive grout. Nine (9) injection pipes should be installed on a ten (10) foot grid pattern centered on each boring location B-1, B-7 and B-8. Fifteen (15) injection pipes should also be installed on a ten (10) foot grid pattern around boring locations B-3 and B-6. Forty-two (42) injection pipes should be installed in total. Additional injection pipes may be added depending on grout intakes. We refer the reader to the Grout Injection Plan presented in Appendix I for proposed grout pipe injection locations.

Grout shall be utilized to seal loose zones to depths of approximately forty-three (43) feet below the existing site grade. Geo-Tech estimates grout quantities for this project to range between three hundred fifty (350) to five hundred (500) cubic yards. Grout mix specifications and pumping procedures are presented in Appendix I. The Grouting Contractor should present submittals to Geo-Tech for approval.

Geo-Tech also recommends excavating in the base of each surface depression until firm soils are found followed by backfilling of the excavations.

Backfill material should consist of sandy clay soils with a minimum plasticity index of twenty-five (25) and a minimum of fifty (50) percent passing a U.S. Standard No. 200 sieve to within two (2) feet of the proposed bottom of pavement subgrade. Compaction of the sandy clay soils should obtain a minimum of ninety (90) percent of the Modified Proctor (ASTM D1557) maximum dry density value. Uncompacted lifts shall be no thicker than six (6) inches.

The remaining two (2) feet of each excavation should be backfilled in accordance with the Structural Fill Material and Compaction of Structural Fill Material sections of this report. Affected pavement sections should then be replaced in accordance with the original design specifications. We refer you to the Excavate and Backfill Detail presented in Appendix II.

Structural Fill Material

Structural fill material should be free of deleterious materials including roots and/or vegetation. Geo-Tech recommends utilizing sand soils with between three (3) to twelve (12) percent by dry weight of material passing a U.S. Standard No. 200 sieve. All structural fill material should be pre-qualified prior to importing and placing.

Compaction of Structural Fill Material

Structural fill material should be placed in level lifts no greater than twelve (12) inches thick (uncompacted). Lift thicknesses should be reduced to six (6) inches if hand-held compaction equipment is utilized. Each lift should be compacted to at least ninety-eight (98) percent of the maximum density as determined by the Modified Proctor Test Method (ASTM D1557) maximum dry density value. Filling and compaction operations should continue in lifts until the desired elevation is attained.

Closure/General Qualifications

This report has been prepared in order to aid in the evaluation of the site. The scope of this geotechnical site evaluation is limited to this specific project and the location described herein.

Existing Tennis Courts, Martin Luther King Jr. Recreation Center
1510 NW 4th Street, Ocala, Florida

August 18, 2025
Project No. 23-4862.08.2

Evaluations and remediation recommendations submitted in this report are based on our findings from the soil borings performed. Soil, limestone and groundwater conditions may vary between boring locations. These possible variations were not taken into consideration for this report. However, variations may become evident during the remediation. Geo-Tech should be informed if variations are encountered during remediation so our evaluations and recommendations can be reviewed.

APPENDIX I
COMPACTION GROUTING SPECIFICATIONS
&
GROUT INJECTION PLAN

Compaction Grouting Specifications

General

The following grouting specifications are for stabilization and improvement of deep subsurface soil conditions at the project site as indicated in the Recommendations section of this report.

Scope

The scope of work consists of furnishing all labor, equipment and materials and performing all work connected with the injection of the cementaceous grout to fill, seal and stabilize subsurface soils.

Subsurface Soil Stabilization

The subsurface soils stabilization program shall consist of pumping sand-cement grout with suitable chemical additives to the recommended depths and at pressures necessary to fill, stabilize and cement subsurface soils in order to minimize the potential for future subsidence.

Contractor

The compaction grouting Contractor shall submit their qualifications to Soil Engineer and the Owner. The Contractor shall have at least five (5) years of experience in similar deep and shallow compaction grouting jobs and shall submit references of their activities. The Contractor shall submit a project schedule to Soil Engineer for approval prior to mobilization to the site. The Contractor shall also provide sufficient labor and equipment to ensure the project site is protected from pedestrians and non-essential construction vehicles by means of caution tape and/or protective fencing in order to provide a safe working environment for construction and non-construction personnel.

Equipment

- a. Grout Injection Equipment: A continuous flow, positive displacement model with a pugmill type mixing vat having a minimum shaft speed of sixty (60) rpm and incorporated as an integral part of the mudjack equipment. Alternate equipment may be used at the discretion of Geo-Tech.
- b. Mixer: (If On-Site Mixing is Used) Machine driven rotary mixer with a minimum seven (7) cubic foot capacity; agitate during pumping operations.
- c. Injection Pipes: Minimum diameter two (2) inch I.D., Maximum Diameter four (4) inch I.D.
- d. Pressure Gauge: Sufficient size (4-inch face) in order to be legible while monitoring grouting pressures from a safe distance.

Grout Mixture

The mixture used for grouting shall be a creamy consistency which will permit the grout mixture, when set aside in a standard concrete test mold, to show less than one percent of the mixture height of free water on the surface after standing not less than twelve (12) hours. The grout mixture shall have a time of efflux (ASTM C939-81) greater than thirty-five (35) seconds. Geo-Tech recommends utilizing a compaction grout mix option as presented in Table 1 below. Please

note that either mix option may be used subject to minor variation of any constituent if found necessary to meet the above requirements.

Table 1 Compaction Grout Mix Options

Constituent	Mix A	Mix B
Fly Ash (Gs = 2.5)	500 pounds	n/a
Cement (Gs = 3.15)	500 pounds	900 pounds
Water	55 gallons	55 gallons
Sand (Gs = 2.65)	2,300 pounds	2,300 pounds
Darex (or equal)	1 ounce	1 ounce
WRDA-79 (or equal)	45 ounces	45 ounces

Note: Quantities presented in Table 1 are for one (1) cubic yard of material.

Grout Mixture and Placement

Facilities shall be provided to accurately measure ingredients in each batch of grout if on-site mixing is used. Ingredients shall be thoroughly mixed and immediately pumped to the grout pipes through a flexible hose connection not more than two hundred fifty (250) feet long.

Compaction Grouting Procedure

- a. The scope of this compaction grout program includes grouting at pipe locations on approximately ten (10) foot centers. However, the program may be modified by the Soil Engineer as dictated by the actual field conditions encountered. Some injection pipe locations may be deleted and/or alternate locations may be added to the program if directed by the Soil Engineer.
- b. Grout pipes shall be installed to refusal conditions. The Contractor shall rotary drill (using a Bentonite slurry) the injection pipes to a minimum depth of fifteen (15) feet and then either drill or drive, at the discretion of the Soil Engineer, to the refusal depth. Any other method of installation shall not be accepted unless approved by the Soil Engineer.
- c. Grouting operations may begin following satisfactory installation of injection pipes. The rate of pumping shall not exceed six (6) cubic feet per minute. Pumping pressures should range between one-hundred (100) to one-hundred fifty (150) psi at the tip of the casing. The in-line pressure gauge should be of sufficient size in order to be legible while monitoring grouting pressures from a safe distance (4-inch face).
- d. Shallow grouting may be performed at the discretion of the Soil Engineer to re-level concrete slabs, footings or other structures.
- e. All grouting operations shall be monitored by a Geo-Tech representative.

Soil Engineer Monitoring

The Soil Engineer will monitor the compaction grouting operations and represent the Owner to assure compliance with the specifications outlined above and the duties discussed below. The Soil Engineer shall recommend intervals of grouting and shall decide if additional or less grout is necessary.

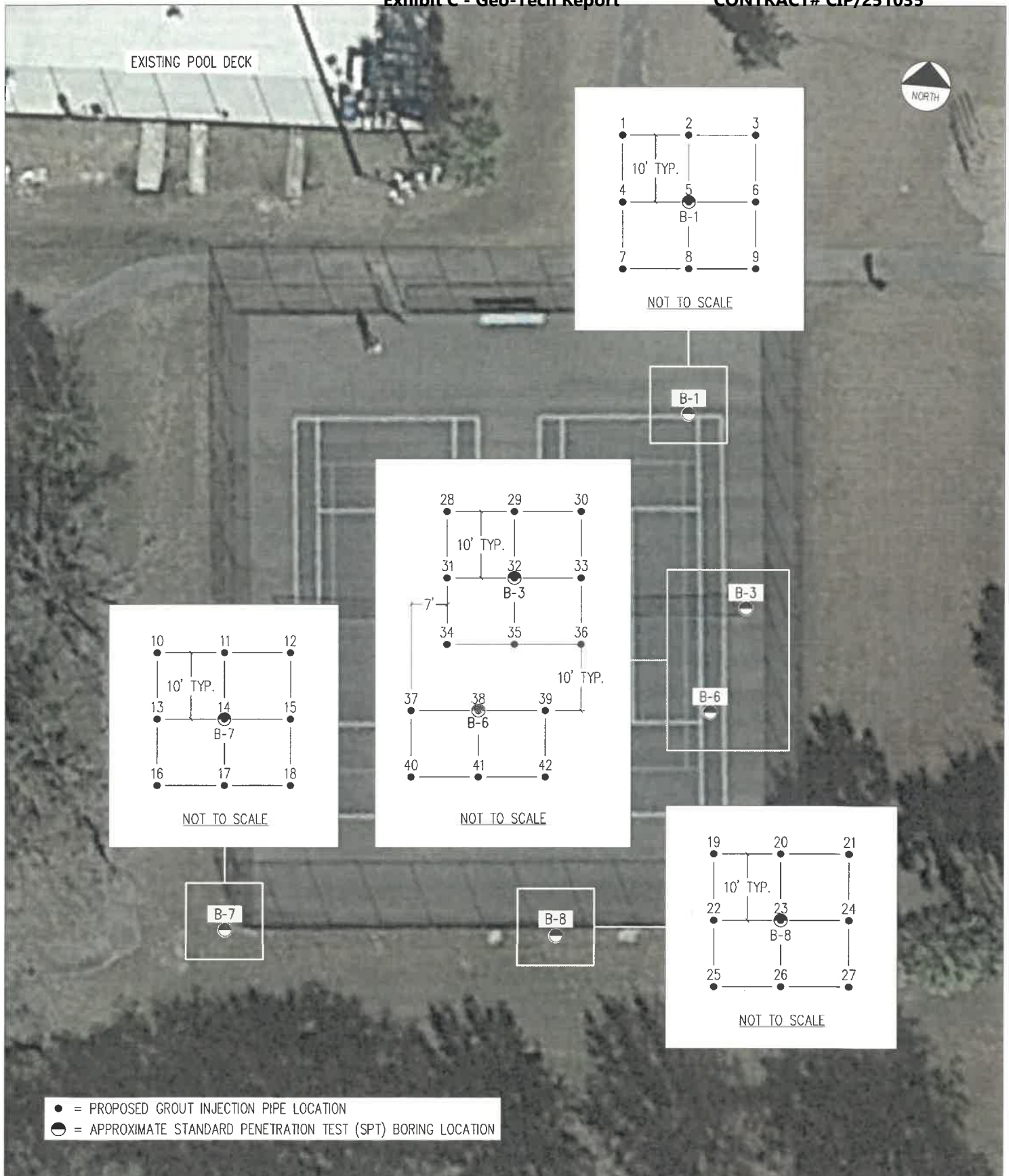
- a. The Soil Engineer can stop the grouting operation at any time if the operation does not comply with the abovementioned specifications or if the work is unsuitable. The Soil Engineering will not be responsible for damage to the lawn, landscape areas or structures due to grouting procedures.
- b. The Soil Engineer will make all measurements of grout heave, settlement and grout quantity pumped. The Soil Engineer will maintain daily records of the grouting operation for the benefit of the Owner and Contractor. The grout quantity recorded by the Soil Engineer shall be considered the final amount of grout pumped for billing purposes. The Contractor will be responsible for laser equipment necessary to monitor at least three (3) locations continuously during the grouting operation.
- c. The Soil Engineer shall observe any vertical movement of the ground during the grouting operation. The grouting operation shall cease and observations shall continue for thirty (30) minutes if a momentary downward movement is observed. Pumping shall be resumed at a lower rate of discharge if the ground does not return to its original grade. The grouting operation shall cease if upward movement is observed.
- d. The Contractor shall exercise care when grouting beneath and adjacent to existing structures. The Contractor is responsible for ensuring that the grouting operation does not cause unnecessary damage to existing structures.
- e. Grouting operations shall cease and the Soil Engineer shall be notified when grout injection pipes in undeveloped areas are ten (10) feet or shallower measured from existing grade, when grout injection pipes in close proximity to existing buildings are fifteen (15) feet or shallower measured from existing grade and when grout injection pipes adjacent to in-ground pools are twenty (20) feet or shallower from existing site grade. Grouting operations shall cease and the Soil Engineer shall be notified when grout injection pipes in close proximity to existing buildings are fifteen (15) feet or shallower measured from existing grade. These points may be abandoned or relocated by the Soil Engineer.

Considerations

Unit prices per cubic yard of grout, per foot for pipe installation/removal and per day of shallow grouting shall be applicable to quantities over or under the estimated amounts.

APPENDIX II

REMEDIATION DETAIL



CITY OF OCALA ENGINEERING DEPARTMENT

EXISTING TENNIS COURTS
MARTIN LUTHER KING JR. RECREATION COMPLEX
1510 NW 4TH STREET, OCALA, FLORIDA

GROUT INJECTION PLAN

GEO-TECH, INC.

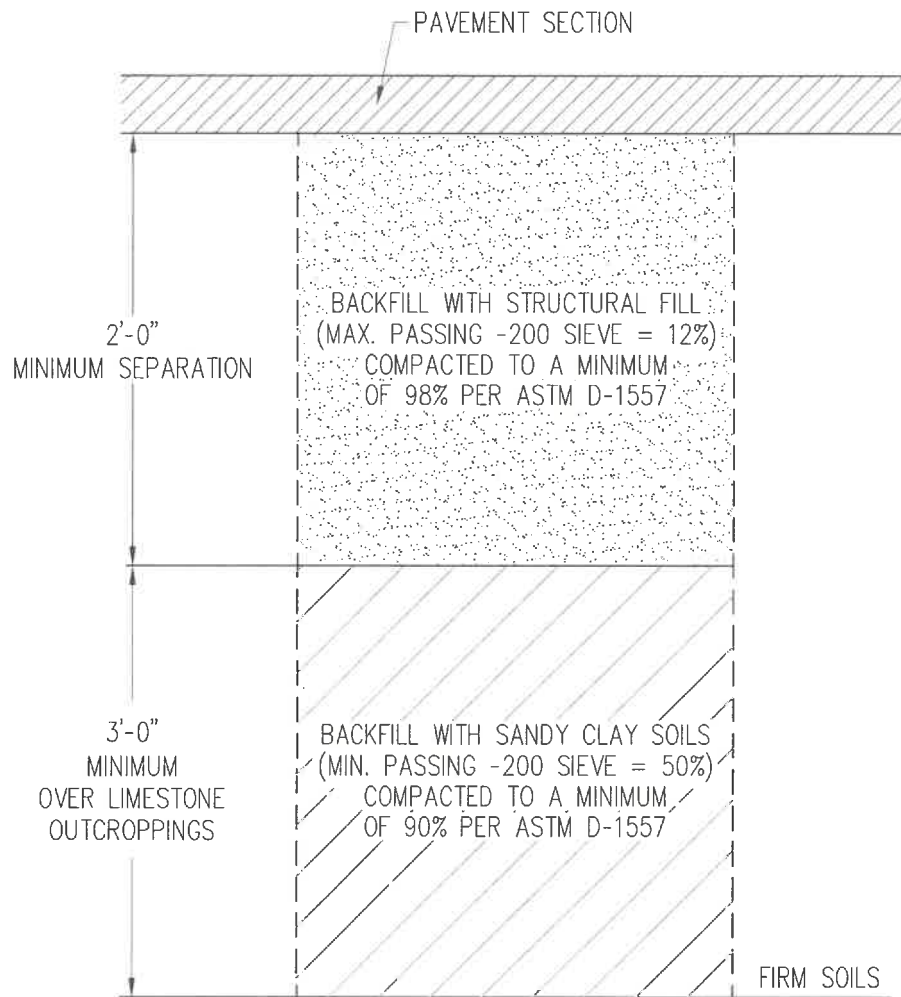
■ GEOTECHNICAL ■ ENVIRONMENTAL
■ CONSTRUCTION MATERIALS TESTING ■ GEOPHYSICAL EXPLORATION
1016 SE 3rd AVENUE, OCALA, FLORIDA 34471 ~ (352) 694-7711

PROJECT NO.
23-4862.08.2

SCALE: N.T.S.

DATE: 8-12-25

FIGURE: 1



EXCAVATE AND BACKFILL DETAIL

GEO-TECH, INC.

■ GEOTECHNICAL ■ ENVIRONMENTAL
 ■ CONSTRUCTION MATERIALS TESTING ■ GEOPHYSICAL EXPLORATION
 1016 SE 3rd AVENUE, OCALA, FLORIDA 34471 ~ (352) 694-7711

Figure

2

APPENDIX III

SOIL PROFILES

Exhibit C - Geo-Tech Report

CONTRACT# CIP/251035

GEO-TECH, INC.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue

Ocala, Florida

352.694.7711

WWW.GEOTECHFL.COM

Project: EXISTING TENNIS COURTS, 1510 NW 4TH ST., OCALA, FL

Project No: 23-4862.08.2

Boring Location: (SEE BORING LOCATION MAP)

Engineer: CAH

Client: CITY OF OCALA ENGINEERING DEPARTMENT

Enclosure: BORING MAP

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test N-Values
0		Ground Surface		0.0				
1		PAVEMENT SECTION	MEDIUM DENSE	2.0	1		11	11
2		ASPHALT = 1"						
3		CLAYEY SAND	LOOSE		2		6	6
4		YELLOWISH BROWN CLAYEY SAND (SC)	LOOSE	6.0	3		4	4
5								
6		FINE SAND	LOOSE		4		5	5
7		BROWN FINE SAND (SP)	LOOSE		5		7	7
8								
9		CLAYEY SAND						
10		YELLOWISH BROWN CLAYEY SAND (SC)						
11								
12				13.5				
13			WOH (14.0' - 15.0')		6		0	0
14		NO SAMPLE	VERY LOOSE		7		2	2
15		NO SAMPLE RECOVERED						
16								
17								
18			WOH (18.5' - 23.0')		8		0	0
19								
20								
21								
22								
23			VERY LOOSE		9		2	2
24								
25								
26								
27								
28								
29			VERY LOOSE		10		2	2
30								
31								
32								
33								
34			WOH (28.5' - 40.0')		11		0	0
35								
36								
37								
38				38.5				
39		CLAYEY SAND	WOH		12		0	0
40		YELLOWISH BROWN CLAYEY SAND (SC)		41.0				
41			50 BLOWS - 1"	42.0	13		50	50
42		LIMESTONE						
43		LIGHT BROWN LIMESTONE						
44								
45								
46		End of Borehole						
47								

Groundwater Depth: GREATER THAN 10.0 FEET

Drill Date: AUGUST 7, 2025

Drilled By: CM/DS/AM/KH

Drill Method: ASTM D1586

Remarks: UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 1 OF 8

Exhibit C - Geo-Tech Report

CONTRACT# CIP/251035

GEO-TECH, INC.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue

Ocala, Florida

352.694.7711

WWW.GEOTECHFL.COM

Project: EXISTING TENNIS COURTS, 1510 NW 4TH ST., OCALA, FL

Project No: 23-4862.08.2

Boring Location: (SEE BORING LOCATION MAP)

Engineer: CAH

Client: CITY OF OCALA ENGINEERING DEPARTMENT

Enclosure: BORING MAP

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test N-Values
0		Ground Surface		0.0				
1		PAVEMENT SECTION						
2		ASPHALT = 2"						
3		FINE SAND	HAND AUGERED (0.0' - 6.0')					
4		BROWN FINE SAND (SP)						
5				6.0				
6		CLAYEY SAND	LOOSE		1		8	8
7		YELLOWISH BROWN CLAYEY SAND (SC)	MEDIUM DENSE		2		19	19
8								
9								
10								
11								
12								
13				13.5				
14		SLIGHTLY SANDY CLAY	STIFF		3		11	11
15		GRAY AND YELLOWISH BROWN						
16		SLIGHTLY SANDY CLAY (CH)						
17								
18								
19			STIFF		4		12	12
20								
21								
22								
23				23.5				
24		LIMESTONE	50 BLOWS - 6"					
25		LIGHT BROWN LIMESTONE		25.0	5		50	50
26								
27		End of Borehole						
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								

Groundwater Depth: GREATER THAN 10.0 FEET

Drill Date: AUGUST 8, 2025

Drilled By: CS/NA

Drill Method: ASTM D1586

Remarks: UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 2 OF 8

Exhibit C - Geo-Tech Report

CONTRACT# CIP/251035

GEO-TECH, INC.

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1016 SE 3rd Avenue

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WWW.GEOTECHFL.COM

Project: EXISTING TENNIS COURTS, 1510 NW 4TH ST., OCALA, FL

Project No: 23-4862.08.2

Boring Location: (SEE BORING LOCATION MAP)

Engineer: CAH

Client: CITY OF OCALA ENGINEERING DEPARTMENT

Enclosure: BORING MAP

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test N-Values
0		Ground Surface		0.0				
1		PAVEMENT SECTION	LOOSE		1		4	4
2		ASPHALT = 1"	LOOSE		2		5	5
3		FINE SAND	MEDIUM DENSE		3		11	11
4		BROWN FINE SAND (SP)	LOOSE	8.0	4		5	5
5			VERY LOOSE	10.0	5		2	2
6		CLAYEY SAND						
7		YELLOWISH BROWN CLAYEY SAND (SC)						
8		NO SAMPLE						
9		NO SAMPLE RECOVERED						
10			WOH (10.0' - 26.0')		6		0	0
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29		SLIGHTLY SANDY CLAY	SOFT	28.5	9		4	4
30		GRAY AND YELLOWISH BROWN		31.0				
31		SLIGHTLY SANDY CLAY (CH)	50 BLOWS - 2"	32.0	10		50	50
32		LIMESTONE						
33		LIGHT BROWN LIMESTONE						
34								
35								
36		End of Borehole						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								

Groundwater Depth: GREATER THAN 10.0 FEET

Drill Date: AUGUST 7, 2025

Drilled By: CM/DS/AM/KH

Drill Method: ASTM D1586

Remarks: UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 3 OF 8

Exhibit C - Geo-Tech Report

CONTRACT# CIP/251035

GEO-TECH, INC.

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Project: EXISTING TENNIS COURTS, 1510 NW 4TH ST., OCALA, FL

Project No: 23-4862.08.2

Boring Location: (SEE BORING LOCATION MAP)

Engineer: CAH

Client: CITY OF OCALA ENGINEERING DEPARTMENT

Enclosure: BORING MAP

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test N-Values
0		Ground Surface		0.0				
1		PAVEMENT SECTION	LOOSE		1		4	4
2		ASPHALT = 2"	VERY LOOSE		2		2	2
3		FINE SAND	LOOSE	6.0	3		5	5
4		BROWN FINE SAND (SP)	LOOSE		4		5	5
5		CLAYEY SAND	LOOSE		5		21	21
6		YELLOWISH BROWN CLAYEY SAND (SC)	MEDIUM DENSE					
7				13.5	6		26	26
8		FINE SAND	MEDIUM DENSE					
9		BROWN FINE SAND (SP)			7		30	30
10			DENSE					
11					8		40	40
12			DENSE					
13					9		36	36
14			DENSE					
15					10		17	17
16			MEDIUM DENSE					
17				38.5	11		14	14
18		CLAYEY SAND	MEDIUM DENSE					
19		YELLOWISH BROWN CLAYEY SAND (SC)						
20				43.5				
21				45.0	12		50	50
22		LIMESTONE	50 BLOWS - 6"					
23		LIGHT BROWN LIMESTONE						
24								
25		End of Borehole						

Groundwater Depth: GREATER THAN 10.0 FEET

Drill Date: AUGUST 11, 2025

Drilled By: CS/NA

Drill Method: ASTM D1586

Remarks: UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 4 OF 8

Exhibit C - Geo-Tech Report

CONTRACT# CIP/251035

GEO-TECH, INC.

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Project No: 23-4862.08.2

Boring Location: (SEE BORING LOCATION MAP)

Engineer: CAH

Client: CITY OF OCALA ENGINEERING DEPARTMENT

Enclosure: BORING MAP

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test N-Values
0		Ground Surface		0.0				
1		PAVEMENT SECTION	LOOSE		1		4	4
2		ASPHALT = 2"	LOOSE		2		4	4
3		FINE SAND	LOOSE		3		8	8
4		BROWN FINE SAND (SP)			4		12	12
5					5		13	13
6								
7								
8								
9		CLAYEY SAND	MEDIUM DENSE					
10		YELLOWISH BROWN CLAYEY SAND (SC)						
11								
12								
13								
14		SLIGHTLY SANDY CLAY	VERY STIFF		6		18	18
15		GRAY AND YELLOWISH BROWN						
16		SLIGHTLY SANDY CLAY (CH)						
17								
18								
19								
20					7		13	13
21								
22								
23								
24		CLAYEY SAND	MEDIUM DENSE		8		11	11
25		YELLOWISH BROWN CLAYEY SAND (SC)						
26								
27								
28								
29		SLIGHTLY SANDY CLAY	MEDIUM STIFF		9		6	6
30		GRAY AND YELLOWISH BROWN						
31		SLIGHTLY SANDY CLAY (CH)						
32								
33								
34		LIMESTONE	50 BLOWS - 6"					
35		LIGHT BROWN LIMESTONE			10		50	50
36								
37		End of Borehole						
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								

Groundwater Depth: GREATER THAN 10.0 FEET

Drill Date: AUGUST 11, 2025

Drilled By: CM/DS/AM/KH

Drill Method: ASTM D1586

Remarks: UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 5 OF 8

Exhibit C - Geo-Tech Report

CONTRACT# CIP/251035

GEO-TECH, INC.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue
Ocala, Florida
352.694.7711
WWW.GEOTECHFL.COM

Project: EXISTING TENNIS COURTS, 1510 NW 4TH ST., OCALA, FL

Project No: 23-4862.08.2

Boring Location: (SEE BORING LOCATION MAP)

Engineer: CAH

Client: CITY OF OCALA ENGINEERING DEPARTMENT

Enclosure: BORING MAP

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test N-Values
0		Ground Surface		0.0				
1		PAVEMENT SECTION	LOOSE		1		5	5
2		ASPHALT = 2"	LOOSE		2		4	4
3		FINE SAND	LOOSE		3		6	6
4		BROWN FINE SAND (SP)	LOOSE	6.0	4		7	7
5			LOOSE		5		7	7
6		CLAYEY SAND	LOOSE		6		0	0
7		YELLOWISH BROWN CLAYEY SAND (SC)	LOOSE		7		5	5
8			LOOSE		8		0	0
9			WOH (10.0' - 12.0')		9		2	2
10			LOOSE	15.0	10		0	0
11			WOH (15.0' - 15.5')		11		0	0
12			VERY LOOSE WOH (21.5' - 22.0')		12		8	8
13			WOH (23.5' - 24.0')		13		0	0
14			LOOSE		14		11	11
15			WOH (25.0' - 32.0')		15		50	50
16		FINE SAND						
17		BROWN FINE SAND (SP)						
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35		LIMESTONE	MEDIUM DENSE	34.5	14		11	11
36		LIGHT BROWN LIMESTONE	50 BLOWS - 2"	36.0	15		50	50
37								
38		End of Borehole						
39								
40								
41								
42								
43								
44								
45								
46								
47								

Groundwater Depth: GREATER THAN 10.0 FEET

Drill Date: AUGUST 7, 2025

Drilled By: CM/DS/AM/KH

Drill Method: ASTM D1586

Remarks: UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 6 OF 8

Exhibit C - Geo-Tech Report

CONTRACT# CIP/251035

GEO-TECH, INC.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue
Ocala, Florida
352.694.7711

WWW.GEOTECHFL.COM

Project: EXISTING TENNIS COURTS, 1510 NW 4TH ST., OCALA, FL

Project No: 23-4862.08.2

Boring Location: (SEE BORING LOCATION MAP)

Engineer: CAH

Client: CITY OF OCALA ENGINEERING DEPARTMENT

Enclosure: BORING MAP

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test N-Values
0		Ground Surface		0.0				
1		FINE SAND	LOOSE		1		7	7
2		BROWN FINE SAND (SP)	LOOSE		2		4	4
3			VERY LOOSE		3		2	2
4			VERY LOOSE		4		2	2
5				8.0				
6								
7								
8		CLAYEY SAND	LOOSE		5		6	6
9		YELLOWISH BROWN CLAYEY SAND (SC)						
10								
11								
12			LOOSE		6		6	6
13								
14								
15								
16								
17				18.5				
18		LIMESTONE	13 BLOWS - 12"	20.0	7		13	13
19		LIGHT BROWN LIMESTONE (POSSIBLE BOULDER)						
20								
21		CLAYEY SAND	LOOSE		8		5	5
22		YELLOWISH BROWN CLAYEY SAND (SC)						
23								
24								
25								
26								
27								
28								
29			WOH (28.5' - 30.0')		9		0	0
30					10		4	4
31								
32			WOH (31.5' - 37.5')	33.5	11		0	0
33								
34		LIMESTONE						
35		LIGHT BROWN LIMESTONE						
36								
37								
38								
39			2 BLOWS - 12"		12		2	2
40			WOH (39.5' - 41.5')		13		0	0
41			WOH (42.5' - 43.0')		14		0	0
42								
43			50 BLOWS - 4"	45.0	15		50	50
44								
45								
46		End of Borehole						
47								

Groundwater Depth: GREATER THAN 10.0 FEET

Drill Date: AUGUST 7, 2025

Drilled By: CM/DS/AM/KH

Drill Method: ASTM D1586

Remarks: UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 7 OF 8

Log of Borehole: D-8

Exhibit C - Geo-Tech Report

CONTRACT# CIP/251035

GEO-TECH, INC.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue

Ocala, Florida

352.694.7711

WWW.GEOTECHFL.COM

Project: EXISTING TENNIS COURTS, 1510 NW 4TH ST., OCALA, FL

Project No: 23-4862.08.2

Boring Location: (SEE BORING LOCATION MAP)

Engineer: CAH

Client: CITY OF OCALA ENGINEERING DEPARTMENT

Enclosure: BORING MAP

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test N-Values
0		Ground Surface		0.0				
1		FINE SAND	VERY LOOSE		1		3	3
2		BROWN FINE SAND (SP)	LOOSE		2		4	4
3			LOOSE		3		6	6
4			LOOSE		4		7	7
5			LOOSE	8.0	5		8	8
6								
7								
8		CLAYEY SAND	LOOSE					
9		YELLOWISH BROWN CLAYEY SAND (SC)						
10								
11								
12								
13								
14			MEDIUM DENSE	15.0	6		16	16
15								
16		SLIGHTLY SANDY CLAY						
17		GRAY AND YELLOWISH BROWN						
18		SLIGHTLY SANDY CLAY (CH)						
19								
20			HARD	20.0	7		37	37
21								
22		CLAYEY SAND						
23		YELLOWISH BROWN CLAYEY SAND (SC)						
24								
25			LOOSE		8		9	9
26			WOH		9		0	0
27			(25.0' - 28.5')					
28								
29								
30				30.0				
31		LIMESTONE	50 BLOWS - 2"	31.5	10		50	50
32		LIGHT BROWN LIMESTONE						
33								
34		End of Borehole						
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								

Groundwater Depth: GREATER THAN 10.0 FEET

Drill Date: AUGUST 7, 2025

Drilled By: CM/DS/AM/KH

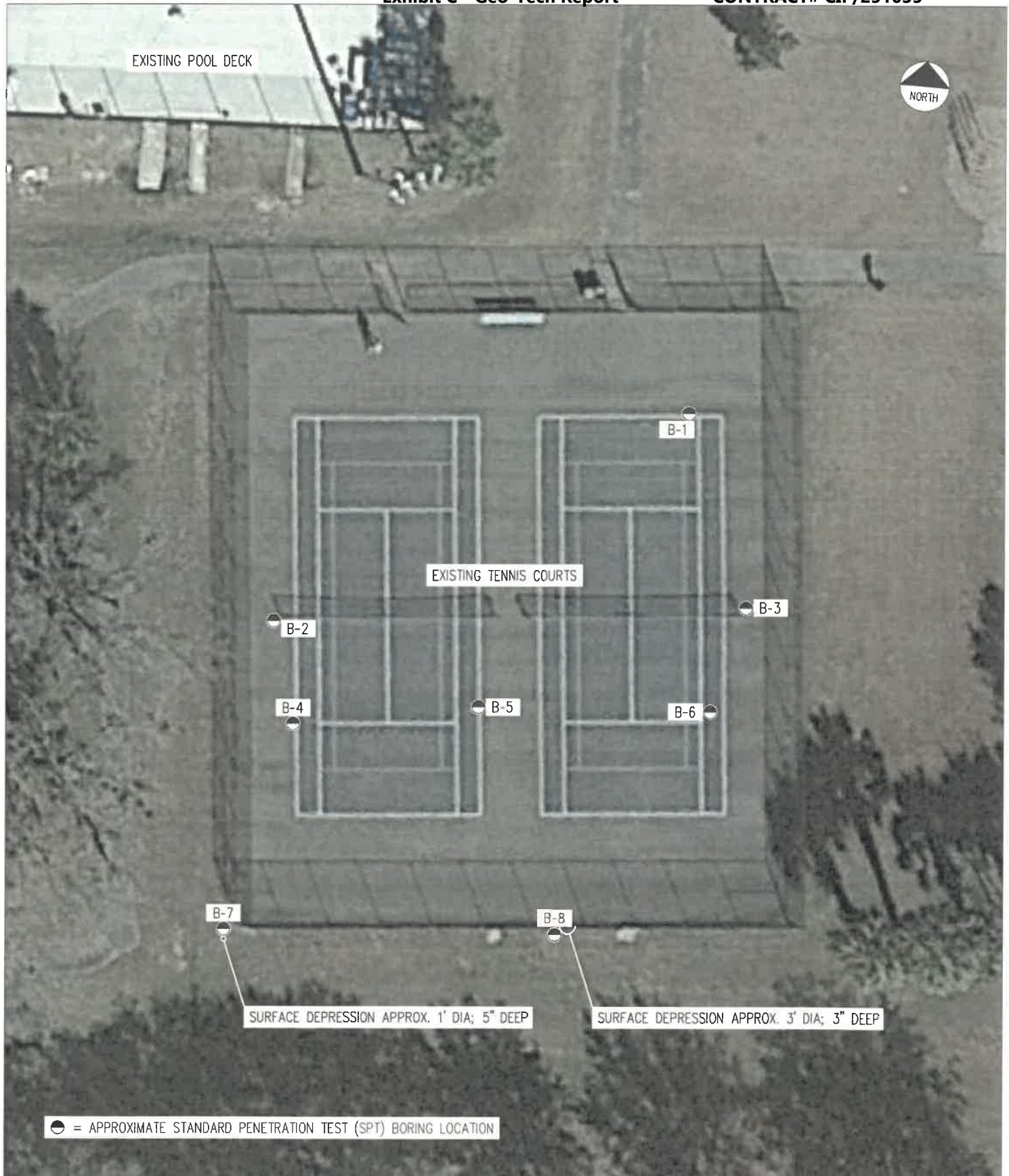
Drill Method: ASTM D1586

Remarks: UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 8 OF 8

APPENDIX IV

BORING LOCATION MAP



CITY OF OCALA ENGINEERING DEPARTMENT
 EXISTING TENNIS COURTS
 MARTIN LUTHER KING JR. RECREATION COMPLEX
 1510 NW 4TH STREET, OCALA, FLORIDA

BORING LOCATION MAP

GEO-TECH, INC.

■ GEOTECHNICAL ■ ENVIRONMENTAL
 ■ CONSTRUCTION MATERIALS TESTING ■ GEOPHYSICAL EXPLORATION
 1016 SE 3rd AVENUE, OCALA, FLORIDA 34471 ~ (352) 694-7711

PROJECT NO.
 23-4862.08.2

SCALE: N.T.S.

DATE: 8-12-25

FIGURE: 3