

JSJ Builders Inc
1135 Robeson St
Fayetteville, NC 28305

07/24/2025

Attention : Devin Dukes

RE: Daily Field Report for 07/22/2025
Lot 17 Ducks Landing (CMT) Lillington, NC
Building & Earth Project No : RD250695

Ladies and Gentlemen:

On this date, representative(s) of Building & Earth were present to perform construction material testing services at this project site. Our testing and observations for this date include the following:

FO-1 : Field Observations made on this date.

- Foundation Inspection
- Project Management Review

Passed
Passed

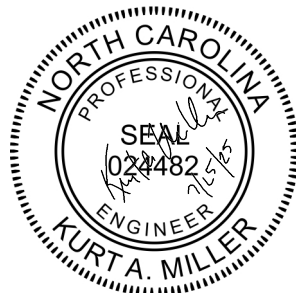
ST-1 : In place field density testing was performed for Finished Subgrade Soils -Building. The field density testing was performed in general accordance with ASTM D1556, using the results of field one-point as compared to the laboratory proctors. One(1) in-place field density test was performed on this date. The testing results indicate that in-place compaction and moisture content at the location and depth tested meet or exceed the specified requirements outlined in the project plans and specifications. For additional details of our testing, please refer to the attached Field Density Test Report.

Closing

The testing and observations identified above have been reviewed by our project manager. If you have questions regarding this information, please do not hesitate to contact us.

Respectfully Submitted,
Building & Earth Sciences, LLP

Enclosures : FO-1, ST-1



Rachael Heath

Field Observations Report

Project Name:	Lot 17 Ducks Landing (CMT) Lillington, NC	Project Number:	RD250695
Client Name:	JSJ Builders Inc	Placement#:	FO-1
Contractor:	JSJ Builders Inc	Technician:	Adam Buechler
Monitoring:	DCP		

1 : Foundation Inspection

Passed

Our technician was onsite to perform a shallow foundation inspection for lot 17. The foundation requires a bearing capacity of 2000 psf as stated by the building code. Excavations were not complete upon our arrival onsite and the bearing soils appeared to be relatively flat and free of organic material and debris. The soils appeared to consist mostly of dry, silty clay. No standing water was noted on the bearing surface. Hand rod probing was performed on 100% of the bearing surface with average penetration of approximately 1". Our representative performed Dynamic Cone Penetration (DCP) testing in general accordance with ASTM STP-399 at two representative locations to a depth of 36" inches. Water was not observed within the DCP boreholes.

The following information provides the results of our hand auger boring and DCP testing:

Test 1: 10' from the front right corner

Depth	Soil Color	USCS	Notes
15'	Light Brown	Silty Clay	Soils appeared to be dry of optimum moisture
11'	Light Brown	Silty Clay	Soils appeared to be dry of optimum moisture
12'	Dark Gray	Silty Sand	Soils appeared to be dry of optimum moisture
5'	Light Gray	Silty Sand	Soils appeared to be dry of optimum moisture

Test 2: 10' from the Back Left corner

Depth	Soil Color	USCS	Notes
7'	Light Brown	Silty Clay	Soils appeared to be dry of optimum moisture
7'	Light Brown	Silty Clay	Soils appeared to be dry of optimum moisture
12'	Dark Gray	Silty Sand	Soils appeared to be dry of optimum moisture
7'	Light Gray	Silty Sand	Soils appeared to be dry of optimum moisture

Results:

Based on our observations and test results, the required bearing capacity of (2,000 psf) is available at the location and elevations tested on this date.

To minimize the potential for future softening of the bearing materials due to water infiltration; reinforcing steel and concrete placement should be completed as soon as practically possible or concrete mud mat should be placed. Any water infiltration should be removed through gravity drainage and/or sump pits and pumping. Any foundations that meet bearing capacity requirement today and experience water infiltration before concrete placement, should be retested by Building & Earth Sciences.

2 : Project Management Review

Passed

Our client has authorized Building & Earth Sciences to perform an evaluation of the prepared building pad for this project. We understand that the structure will have a monolithic slab-on-grade floor system that will have foundations and a floor slab that will be supported by the newly placed structural fill soils. It appears that between 1.5 and 2.5 feet of structural fill soils have been placed to achieve the desired grades. The intent of our testing was to determine if the newly placed structural fill soils are adequate to provide a bearing capacity of 2,000 psf for the foundations, and have been compacted to 95% to support the floor slab for the new structure.

Our evaluation included hand rod probing, advancing hand auger borings with DCPs and performing a density test on the surface. Based upon our hand rod probing the newly placed soils are firm and resistant to significant penetration. Hand auger borings were then advanced at 2 selected location across the building envelope to determine the consistency of the below grade soils. At 12-inch increments in the hand auger boring, to a depth of 3 feet, Dynamic Cone Penetrometer (DCP) Testing was performed in accordance

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Monitoring:	DCP		

with ASTM STP-399. With proper evaluation, DCP Testing can be correlated to both bearing capacity and percent compaction. Based upon the results of this testing, the below grade soils that will support the foundations and floor slab are acceptable.

While on site, our representative also performed in place density testing to confirm compaction of the surface soils. Our testing was performed using the sand cone method in general accordance with ASTM D-1556. Our results were compared to an in-field proctor that was performed in general accordance with ASTM D-698. Based upon our tests results, the soils have been properly compacted at the surface.

It is important to note that our testing was isolated to the upper 3 feet. As such, we are not able to comment upon the settlement characteristics of deeper soils. Additionally, inclement weather (rain or snow), as well as construction traffic across the pad, can compromise the stability and support characteristics of the surface soils. If the surface soils become compromised, it will be necessary to return to the site for re-testing. This decision should be executed by your onsite Quality Control and Superintendents.

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Monitoring:	DCP		



Photographs

Picture ID	Front of lot 17
111347	
Picture ID	Back of lot 17
111348	

Field Observations Report

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Monitoring:	DCP		

Photographs

Picture ID		First DCP front right corner
111349		
Picture ID		Back left corner second, DCP
111350		



ST-1

Test Date: 07/22/2025
Field Technician: Adam Buechler
Tests requested by: Daniel Pinkerton
Results provided to: Daniel Pinkerton

Report of Field Density Testing

Project Name: Lot 17 Ducks Landing (CMT) Lillington, NC Ambient Temperature: 70-90
Project Number: RD250695 Weather: Clear
Project Location: Lillington, NC Wind Conditions: Calm
Client: JSJ Builders Inc Results Provided To: Daniel Pinkerton
Contractor: JSJ Builders Inc Superintendent: Daniel Pinkerton

- Notes:
- 1 Test location by technician
 - 2 Elevation by Technician
 - 3 Fill/backfill placed prior to technician arriving

Design & Specification Data

Area ID	Area Description	Depth (ft)	Test Method	% Compaction	Moisture Range	
					Min	Max
FSG-Bldg	Finished Subgrade Soils -Building	0.0 - 2.0	ASTM D-698	95 %	- 10.0	+ 10.0

Laboratory Proctors

Proctor ID	Description of Material	USCS/AASHTO	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
1-point			114.0	14.0%

Density Test Data

Test #	IDs		Test Type	Location	Probe Depth (in)	Elev. (ft)	Dry Density(pcf)	% Moisture	% Compaction	Result
	Area	Proctor								
1	FSG-Bldg	1-point	ASTMD1556	Finished Subgrade Soils -Building : Front Right Corner :		FSG	108.9	12.0	96%	PASS

Equipment Used:
Last Calibration:

Standard Counts: Density:
Moisture:

Rachael Heath