

H & H Homes
2919 Breezewood Avenue
Suite 400
Fayetteville, NC 28303

04/23/2020

Attention : John Rice
Zack Gibson

RE: Daily Field Report for 04/22/2020
Lot 149 Anderson Creek Crossing ACX (CMT) Spring Lake, NC
Building & Earth Project No : RD200196

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-3 : Field Observations made on this date.

- Foundation Inspection Passed
- Project Management Review Passed

ST-2 : 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 values from 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-3, ST-2



Rachael Heath

Reviewed By

Field Observations Report

Project Name: **Lot 149 Anderson Creek Crossing ACX (CMT) Spring Lake, NC** Project Number: **RD200196**
Client Name: **H & H Homes** Placement#: **FO-3**
Contractor: **H & H Homes** Technician: **Yassir Abdelwahab**
Monitoring: **Shallow Footing Testing**

1 : Foundation Inspection

Passed

We arrived onsite to retest the rear of the building pad area for this residential lot. We understand the residence has been designed to be supported on a stem wall foundation. Upon arrival, the contractor had not finished excavating the footings. Our evaluation as documented in this report includes:

- 1) A visual description of the residential lot
- 2) Comments on any improvements that hat affect the foundations of the residence
- 3) Hand rod probing of the footing excavations
- 4) Performing Dynamic Cone Penetration (DCP) tests at representative locations
- 5) Soil Density tests on fill, if applicable.

Visual Description of the Lot:

The lot is generally slopes front to back. Building locations are referenced from the street looking at the front of the residence. Maximum relief across the lot is approximately 5 feet. Surface water runoff appears to drain towards the rear.

Comments on Improvements:

The site is stripped

Structural fill has been placed at the site to level the building pad. Based on our observations, we understand the pad has been filled according to the following:

Section-----Thickness of Fill
Rear-----36 inches of fill

Future Footing Tests

Hand Rod Probing: Our representative performed hand rod probing of the surface of the building pad. Hand rod probing of the bearing material generally showed an average penetration of approximately 1-2 inches.

DCP Testing: Our representative performed Dynamic Cone Penetration (DCP) testing in general accordance with ASTM STP-399 at four representative locations to a depth of 48 inches. Our representative did not observe water within the DCP boreholes as noted below.

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

Test 1: [Front Right Corner]

-- Depth--"N"-----Soil Color-----USCS-----
-- FSG --- 9.0 ----- red sand clay --- SM -----
-- -1' --- 10.5 ----- red sand clay --- SM -----
-- -2' --- +15 ----- white sand clay - CL -----
-- -3' --- +15 ----- white sand clay - CL -----

Soil Density Testing:

Field Observations Report

Project Name:	Lot 149 Anderson Creek Crossing ACX (CMT) Spring Lake, NC	Project Number:	RD200196
Client Name:	H & H Homes	Placement#:	FO-3
Contractor:	H & H Homes	Technician:	Yassir Abdelwahab
Monitoring:	Shallow Footing Testing		

Soil density testing was performed using the sand cone method of compaction in general accordance with ASTM D1556. The results of our tests are attached as ST-2.

Results:

Based on our observations and test results, the newly placed fill/existing soils appear to be suitable to provide support for the floor slab and footings, provided the floor slab has a loading of less than 150 pounds per square foot, and the footings have a design bearing capacity of 2,000, or less.

Recommendations:

To minimize the potential for future softening of the bearing materials due to water infiltration, the surface soils should be protected from construction traffic and inclement weather. The construction of the footings and structure should commence without delay. In the event that the subgrade soils become wet, or otherwise compromised from their current condition, should be observed and retested as necessary by Building and Earth Sciences.

We note that our testing was isolated to the upper 3 feet of the soil profile from the finished subgrade elevation as observed on this date. As such, we cannot be aware of any soil or groundwater conditions below this depth that could adversely affect the support of the new construction. If additional information is required, please contact our office.

2 : Project Management Review

Passed

On this date, our representatives returned to the site for re-testing. Based upon our re-testing, the recommended repairs have been accomplished and bearing capacity of 2,000 psf is available. The building pad is now acceptable for the construction of the stem wall foundation.

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.

Field Observations Report

Project Name:	Lot 149 Anderson Creek Crossing ACX (CMT) Spring Lake, NC	Project Number:	RD200196
Client Name:	H & H Homes	Placement#:	FO-3
Contractor:	H & H Homes	Technician:	Yassir Abdelwahab
Monitoring:	Shallow Footing Testing		

Photographs

Picture ID	Observation Location
20370	



ST-2

Test Date: 04/22/2020
 Field Technician: Yassir Abdelwahab
 Tests requested by: N/R
 Results provided to: N/R

Report of Field Density Testing

Project Name: Lot 149 Anderson Creek Crossing ACX (CMT) Spring Lake, NC
 Project Number: RD200196
 Project Location: Spring Lake, NC
 Client: H & H Homes
 Contractor: H & H Homes

Ambient Temperature: 50-70
 Weather: Clear
 Wind Conditions: Calm
 Results Provided To: N/R
 Superintendent: N/R

- Notes:
- 1 Test location by technician
 - 2 Elevation by Contractor
 - 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			121.0	11.0%

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 : About 3' from back & 20' from right		FSG	118.4	12.2	98%	PASS

Equipment Used: _____ Standard Counts: _____ Density: _____
 Last Calibration: _____ Moisture: _____

Rachael Heath

Reviewed By