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

12/06/2021

Attention : Eric Baxley
Max Guatzozon

RE: Daily Field Report for 12/03/2021
Lot 73 Oakmont OKM (CMT) Lillington, NC
Building & Earth Project No : RD210929

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	Passed
• Project Management Review	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 ASTMD1556, 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

NORTH CAROLINA PROFESSIONAL SEAL 024482 ENGINEER KURT A. MILLER

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Dunn, NC 28334
Phone 910-292-2085 Fax 910-292-2192
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Rachael Heath
Reviewed By

Field Observations Report

Project Name:	**Lot 73 Oakmont OKM (CMT) Lillington, NC**	Project Number:	**RD210929**
Client Name:	**H & H Homes**	Placement#:	**FO-1**
Contractor:	**H & H Homes**	Technician:	**Justin Burbank**
Monitoring:	**DCP**		

1 : Foundation Inspection

Passed

Our evaluation included hand rod probing and advancing hand auger with Dynamic Cone Penetrometer (DCP) testing. Based upon our hand rod probing, the soils are firm. To confirm these results, hand auger borings were advanced at two locations across the building envelope. At 12-inch increments in the hand auger boring, to a depth of three feet, Dynamic Cone Penetrometer (DCP) Testing was performed in accordance with ASTM STP-399. The following data was retrieved from this testing:

Test 1: [Front Right Corner]

-- Depth----"N"------Soil Color---USCS--------
--- FSG ---- 8 ------- Orange -- SC -------
--- -1' ------ 10 ----- Orange --- SC -------
--- -2' ------ 8 ------ Brown ----- SM -----
--- -3' ------ 9.5 ---- Brown ----- SM -----

Test 2: [Back Left Corner]

-- Depth----"N"------Soil Color---USCS--------
--- FSG ---- 8.5 ---- Orange -- SC -------
--- -1' ------ 8 ------- Orange ---- SC -------
--- -2' ------ 9 ------- Brown ----- SC ----
--- -3' ------ 10.5 ---- Brown ----- SM ----

Soil Density 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-1.

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.

2 : Project Management Review

Passed

Our client has authorized Building & Earth Sciences to perform an evaluation of the prepared building pad for this project. The structure has a stem wall foundation, and the foundation walls have been backfilled to the slab grade using structural fill soils. It appears that between 1 and 2 feet of structural fill soils have been placed to achieve the slab grade. The intent of our testing was to determine if the newly placed structural fill soils have been compacted to 95% to support the floor slab and the interior lug footings.

Our evaluation included hand rod probing the entire area for consistency, performing hand auger borings with DCPs, and performing in place density tests to confirm compaction. Based upon our hand rod probing, the surface soils are firm and resistant to penetration. At selected locations, hand auger borings were advanced at 2 locations within the backfilled area. At 12-inch increments in the hand auger boring, to a depth of 3 feet, Dynamic Cone Penetrometer (DCP) Testing was performed in accordance with ASTM STP-399.

Field Observations Report

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Monitoring:	**DCP**		

With proper evaluation, DCP Testing can be correlated to both bearing capacity and percent compaction. Based upon our testing, the soils below the surface have been compacted properly at the locations tested.

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.

Therefore based upon the results of our testing, the newly placed fill soils have been compacted adequately to provide support for the interior lug foundations and the floor slab. It is important to note that structural inspections were not within our scope of work for this project. As such, we are not able to comment on the construction of the foundation wall.

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	
35556	

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35557	

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Monitoring:	**DCP**		

Photographs

Picture ID	
35558	

Picture ID	
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BUILDING & EARTH
Geotechnical, Environmental, and Materials Engineers

ST-1

Test Date: 12/03/2021
Field Technician: Justin Burbank
Tests requested by: N/R
Results provided to: N/R

Report of Field Density Testing

Project Name:	Lot 73 Oakmont OKM (CMT) Lillington, NC	Ambient Temperature:	60-80
Project Number:	RD210929	Weather:	Mostly Sunny
Project Location:	Lillington, NC	Wind Conditions:	Calm
Client:	H & H Homes	Results Provided To:	N/R
Contractor:	H & H Homes	Superintendent:	N/R

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 (%)
19-0112-01	Silty Sand	SM	117.5	9.5%

Density Test Data

Test #	IDs		Test Type	Location	Probe Depth (in)	Elev. (ft)	Dry Density(pcf)	% Moisture	% Compaction	Result
	Area	Proctor								
1	FSG-Bldg	19-0112-01	ASTMD1556	Finished Subgrade Soils -Building : Building pad Center of pad :		FSG	117.7	6.0	100%	PASS

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

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