Dream Finders Homes-Carolinas
2919 Breezewood Avenue
Suite 400
Fayetteville, NC 28303

06/11/2025

Attention : Blake Dickerhoff
Chris Adams

RE: Daily Field Report for 06/09/2025
Lot 47 Magnolia Ridge (CMT) Lillington, NC
Building & Earth Project No : RD250516

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

Comment 1 : Remove any organic matter from the foundation and compact surface soils before construction of foundations.

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 and ASTMD6938, using the results of field one-point as compared to the laboratory proctors. A total of 2 in-place field density tests were 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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Rachael Heath
Reviewed By

Field Observations Report

Project Name:	**Lot 47 Magnolia Ridge (CMT) Lillington, NC**	Project Number:	**RD250516**
Client Name:	**Dream Finders Homes-Carolinas**	Placement#:	**FO-1**
Contractor:	**Dream Finders Homes-Carolinas**	Technician:	**Matthew Hunt Jr.**
Monitoring:	**DCP**		

1 : Foundation Inspection Passed

We arrived onsite to evaluate the building pad area for this residential lot. We understand the residence has been designed to be supported on a monolithic slab foundation. Our evaluation as documented in this report includes:

1) A visual description of the residential lot
2) Comments on any improvements that 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 relatively flat. Building locations are referenced from the street looking at the front of the residence. Maximum relief across the lot is approximately 1 foot. Surface water runoff appears to drain toward the street.

Comments on Improvements:

The site has been stripped but still appears to have a layer of organics that need attention.

Structural fill has not been placed at the site to level the building pad.

Measurements:
1) How far is the nearest slope from the edge of the foundation? Greater than 10 feet

Footing Test:

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 4 inches.

DCP Testing: 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. 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--------
--- ESG ---- 5 ----- Orange ----- SM --------
--- -1' ------ 8 ------ Orange ----- SM ---------
--- -2' ------ 6 ------ Orange ----- SM -----
--- -3' ------ 6.5 ---- Orange ----- SM -----

Test 2: [Back Left Corner]

--- ESG ---- 5 ----- Orange ----- SM --------

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--- -1' ------ 8.5 ------ Orange ----- SM ---------
--- -2' ------ 13.5 ---- Orange ----- SM -----
--- -3' ------ 12 ------ Orange ----- 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.

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.

We are also not aware of any geotechnical work that may have been performed prior to our arrival onsite. If a geotechnical report is available, please forward it to our office for review. If no report is available, our client accepts all liability for long and short term performance of the foundations.

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 existing soils. It appears no structural fill soils have been placed to achieve the desired grades. The intent of our testing was to determine if the existing 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 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.

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Monitoring:	**DCP**		

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.

Comments

Comment	Log Date	Log Time
Remove any organic matter from the foundation and compact surface soils before construction of foundations.	06/10/2025	10:23:53

Field Observations Report

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Monitoring:	**DCP**		

Photographs

Picture ID	
108424	

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Rachael Heath
Reviewed By

BUILDING & EARTH
Geotechnical, Environmental, and Materials Engineers

ST-1

Test Date: 06/09/2025
Field Technician: Matthew Hunt Jr.
Tests requested by: N/R
Results provided to: N/R

Report of Field Density Testing

Project Name:	Lot 47 Magnolia Ridge (CMT) Lillington, NC	Ambient Temperature:	60-80
Project Number:	RD250516	Weather:	Sunny
Project Location:	Lillington, NC	Wind Conditions:	Calm
Client:	Dream Finders Homes-Carolinas	Results Provided To:	N/R
Contractor:	Dream Finders Homes-Carolinas	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 (%)
Milo Fld2	Silty Sand-Screenings	SM	120.7	6.8%
1-point			118.5	7.5%

Density Test Data

Test #	IDs		Test Type	Location	Probe Depth (in)	Elev. (ft)	Dry Density(pcf)	% Moisture	% Compaction	Result
	Area	Proctor								
1	FSG-Bldg	Milo Fld2	ASTMD1556	Finished Subgrade Soils -Building : Middle of Building Pad :	6	ESG	115.7	6.3	98%	PASS
2	FSG-Bldg	1-point	ASTMD6938	Finished Subgrade Soils -Building : Correlation Test :		For Information Only	108.1	4.8	91%	WAIVED

Equipment Used: 60150-Troxler3430
Last Calibration: 04/18/2025

Standard Counts: Density: 1940
Moisture: 685

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