ADDRESS . . : 91 ELGIN DR SUBDIV: OAKMONT PH1 SC3 52LOTS
CONTRACTOR : GML DEVELOPMENT INC PHONE : (919) 793-5237
OWNER . . . : OAKMONT DEV PTNRS LLC PHONE :
PARCEL . . . : 03-0507-01- -0046- -15-
APPL NUMBER: 15-50036545 CP NEW RESIDENTIAL (SFD)

DIRECTIONS : T/S: 07/01/2015 08:19 AM JBROCK ----
OAKMONT #90

STRUCTURE: 000 000 49.9X55.8 4BDR MONO W/ GARAGE
FLOOD ZONE . . . . : FLOOD ZONE X
BEDROOMS . . . . . : 4000000.00 PROPOSED USE . . . . . : SFD
SEPTIC - EXISTING? . . . . : NEW TANK WATER SUPPLY . . . . . : COUNTY

PERMIT: CPSF 00 CP * SFD

TYP/SQ	REQUESTED COMPLETED	INSP RESULT	DESCRIPTION RESULTS/COMMENTS
P309 01	8/26/15	MR	R*PLUMB UNDER SLAB VRU #: 002708345
	8/26/15	AP	T/S: 08/26/2015 01:00 PM MREARIC ----------
B114 01	8/28/15	JH	R*BLDG MONO SLAB/TEMP SVC POLE VRU #: 002710309
	8/28/15	CA	PER DANIEL ----------
A814 01	8/31/15	SB	ADDRESS CONFIRMATION TIME: 17:00 VRU #: 002711281
	8/31/15	AP	91 ELGIN DR LILLINGTON 27546
			T/S: 08/31/2015 09:19 AM SBENNETT ----------
B114 02	9/01/15	TI	R*BLDG MONO SLAB/TEMP SVC POLE TIME: 17:00 VRU #: 002712305

AP MR

---------- COMMENTS AND NOTES ----------

BUILDING & EARTH

Geotechnical Engineering Services
Construction Material
Civil Quality Control

McKee Homes
101 Hay Street, 2nd Floor
Fayetteville, NC 28301

08/26/2015

Attention : Dave Potter

RE: Daily Field Report for 08/25/2015
Lot 90 Oakmont Subdivision (CMT), Lillington NC
Building & Earth Project No : RD150455

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.

- DCP'S — 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-3, ST-1

NORTH CAROLINA SEAL ENGINEER J. MILLER

Rachael Heath
Reviewed By

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Field Observations Report

Project Name:	**Lot 90 Oakmont Subdivision (CMT), Lillington NC**	Project Number:	**RD150455**
Client Name:	**McKee Homes**	Placement#:	**FO-3**
Contractor:	**McKee Homes**	Technician:	**Kevin Martinez**
Monitoring:	**DCP**		

1 : DCP'S

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 monolthiic slab foundation. Upon arrival, the contractor had 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 generally slopes. The site slopes downward from front to back. Building locations are referenced from the street looking at the front of the residence. Maximum relief across the lot is approximately 1 feet. Surface water runoff appears to drain downward toward the front of the pad in to the road.

Comments on Improvements:

The site has been stripped of surface cover and topsoil. It appears that 12 inches of topsoil has been removed from the building pad area.

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

Section----------Thickness of Cut or Fill
Left Front----------12 inches of fill
Left Rear----------12 inches of fill
Center----------12 inches of fill
Right Front----------12 inches of fill
Right Rear----------12 inches of fill

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 2 inches. Our representative did not observe standing water or evidence of standing water on the footing's bearing surface.

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 between 1 and 3 feet. Our representative (did / 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 left corner]

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Reviewed By

Field Observations Report

Project Name:	**Lot 90 Oakmont Subdivision (CMT), Lillington NC**	Project Number:	**RD150455**
Client Name:	**McKee Homes**	Placement#:	**FO-3**
Contractor:	**McKee Homes**	Technician:	**Kevin Martinez**
Monitoring:	**DCP**		

-- Depth----"N"------Soil Color---USCS--------Notes:
--- ESG -- 10 -------- red --------- sand --------
--- -1' ---- 15+ --- red/brown -----sand---------
--- -2' ----- Auger Refusal ------

Test 2: [front right corner]

-- Depth----"N"------Soil Color---USCS--------Notes:
--- ESG -- 9 -------- red/tan ---------- sand -----
--- -1' ---- 13 ------ red/tan ---------- sand -----
--- -2' ---- 15+ --- red/orange -------- sand -----
--- -3' ---- 15+ --- tan/brown --------- sand -----

Test 3: [back right corner]

-- Depth----"N"------Soil Color---USCS--------Notes:
--- ESG -- 8 -------- red/tan ---------- sand -----
--- -1' ------ Auger Refusal ------

Test 4: [back left corner]

-- Depth----"N"------Soil Color---USCS--------Notes:
--- ESG -- 15+ -------- red/tan ------- sand -----
--- -1' ---- 15+ ------ red/tan --------- sand -----
--- -2' ---- 15+ --- red/orange -------- sand -----
--- -3' ---- 15+ --- tan/brown --------- sand -----

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.

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 and 1.5 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.

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BUILDING & EARTH
Geotechnical, Environmental and Materials Engineers

08/25/2015

Field Observations Report

Project Name:	**Lot 90 Oakmont Subdivision (CMT), Lillington NC**	Project Number:	**RD150455**
Client Name:	**McKee Homes**	Placement#:	**FO-3**
Contractor:	**McKee Homes**	Technician:	**Kevin Martinez**
Monitoring:	**DCP**		

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 4 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 1-3 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.

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 1-3 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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Geotechnical, Environmental, and Materials Engineers

ST-1

Test Date: 08/25/2015
Field Technician: Kevin Martinez
Tests requested by: N/R
Results provided to: N/R

Report of Field Density Testing

Project Name: Lot 90 Oakmont Subdivision (CMT), Lillington NC
Project Number: RD150455
Project Location: Lillington, NC
Client: McKee Homes
Contractor: McKee Homes

Ambient Temperature: 70-90
Weather: Partly Cloudy
Wind Conditions: Calm
Superintendant: 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 (%)
1-point			111.0	10.5%

Density Test Data

Test #	IDs		Test Type	Location	Elev. (ft)	Dry Density(pcf)	% Moisture	% Compaction	Result
	Area	Proctor							
1	FSG-Bldg	1-point	ASTMD1556	Finished Subgrade Soils -Building : building pad 2 feet forward from back wall : In the center	FSG	107.2	7.6	97%	PASS

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

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