

Takla Engineering, PLLC

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Consulting.
Design.
Efficiency.

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Project: Serenity Lot 316

Location: 347 Inspiration Way Fuquay-Varina, NC

Company: CLC Services, LLC

Care Of: Matt Fairfield

Subject: Subgrade Evaluation and 3rd Party Inspection



As requested, Alfred Takla, PE visited the the aforementioned site on October 8th, 2024 to evaluate bearing capacity of the sub-grade soils supporting:

- Foundation wall and/or interior pier footings
 Turndown slab on grade and lug footings
 Attached one-car garage and two-car garage foundation wall footings
 Rear porch post lug footings
 Front porch foundation wall footings

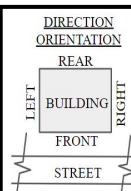
*Patio slabs with no thickened or lug footings are outside the scope of our inspection.

Observations of lot topography, vegetation horizons and soil characteristics were made in order to generally characterize the lot. Based on these observations, and evaluations by means of probing excavation bottoms with a static cone penetrometer with a 60 degree cone assembly, friction sleeve, and gauge with pressure readings correlated to blow counts associated with a Dynamic Cone Penetrometer (DCP), and/or a ½" diameter steel probe rod, we verify the average bearing capacity of the sub-grade soils to meet or exceed a minimum of 2000 pounds per square foot as required by NCRC 2018, Chapter 4 and engineered specifications. No mechanical soil borings, standard proctors or density testing was completed during our inspection to verify compaction or soil conditions at deeper depths. If lot has been subjected to fill (compacted or otherwise), documentation of these aspects should be provided by grading contractor or a geotechnical engineering firm.

We also performed a 3rd party inspection in-lieu of municipal inspections department. We inspected the footings using sealed plans provided by builder. We verify footings preparations comply with North Carolina Residential Code 2018 per applicable code sections Chapter 4 (Sections R401, R402, R403 and R404) as well as our previous engineering recommendations. Specifically we verified:

- Depth and size of all footing excavations mentioned above meet or exceeds per plan specifications and code requirements.
- Locations of all footing excavations mentioned above are found to be per plans.
- Front porch and rear porch footing excavations mentioned above are per plans, of acceptable depth / dimensions, and per code.
- Footings are cut per NCRC 2018 Chapter 4, Sections R401, R402, R403, R404 as mentioned above.
- **All footing layouts are per permitted plan, all conditions are acceptable to receive concrete.**

Limitations of Inspection: Services provided are in accordance with the standard of practice for structural engineering, the North Carolina Residential Code (2018 edition) and within the limits imposed by scope, schedule and budget. The determinations contained in this report are based on conditions observed at the time of the evaluation. No guarantees or warranties, expressed or implied, under this Agreement or otherwise, shall be construed in connection with services provided. Sequencing, shoring, means and methods of construction are considered beyond the scope of this report. All information used to form decisions and recommendations provided to engineer are taken as truthful. Takla Engineering assumes no responsibility for untruthful statements provided by any party. Lastly, while every effort has been made to ensure accuracy in the preparation of these documents, the maker cannot guarantee against human error nor evaluations of structural elements which are concealed from visual inspection.



Harnett COUNTY INSPECTIONS DEPARTMENT

3RD PARTY INSPECTION FORM

RECORD OF THE INSPECTION OF A COMPONENT OR ELEMENT BY A NON-LICENSED ARCHITECT OR ENGINEER

Project Information:

Residential Single Family Project: Y N

Commercial Project: Y N

Code Enforcement Project No.:

Permit No.: SFD2408-0049

Project Name: Serenity Lot 316

Owner:

Project Address: 347 Inspiration Way

Suite No.:

Date Inspected: 10/8/2024

Contractor Name: CLC Services, LLC (Fairfield)

Component Inspected: Footing and 3rd Party Inspection, Job Number 1-5036-24

Responsible Licensed NC Architect or NC Engineer

Name: Alfred A Takla, PE

Firm Name: Takla Engineering, PLLC

Phone No.: Office 919-258-2648 Mobile 919-332-7903

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APPLICABLE CODE SECTION: NCRC 2018

2018 NCBC = 2018 NC Building Code; 2018 NCRC = 2018 NC Residential Code

Describe Element/Component/Type of Inspection: *

Footing and 3rd Party Inspection for house, attached one-car and two-car garages, front porch and rear porch

*(subgrade form/letter may also be required) Attestation/Signature:

By signing below, I certify that the component and/or element of the building as identified on this form has been inspected by me or someone under my direct supervision per subsection (b2) of NC G.S. 153A-352 and is in compliance with the Code or other proposal of the architect or engineer for the project. This inspection is in compliance with all of the requirements of the above referenced Code. Attach any additional documents if needed.

LICENSED ARCHITECT OR ENGINEER



Inspection Department disclaimer: