

Green Building Design

Engineering | Project Management | Inspections
(904) 370-3001

1301 Riverplace Boulevard Suite 800
Jacksonville, FL 32207
www.greenbuildingdesign.com
Certificate of Authorization Number 28891

Donald A. Boggs, PE
Florida PE 31054
don@greenbuildingdesign.com

Foundation Stabilization 410 SW Merciful Place Fort White, FL 32038

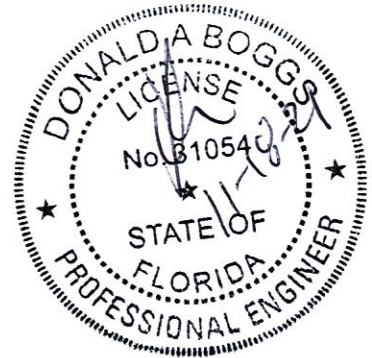
November 18, 2021

Mr. Thomas Woodard
Alpha Foundation Specialists, Inc.
66 Industrial Parkway
Monticello, FL 32344

Dear Mr. Woodard:

I have reviewed the settlement issue at 410 SW Merciful Place, Fort White, FL 32038 and have the following comments:

1. The structure is a one-story, wood frame home with hardie board, built in 2007.
2. The floor is a raised wood floor with wood beams and wood joists.
3. The supporting foundation for the wood beams is concrete block piers.
4. The perimeter foundation stem wall is concrete block.
5. The perimeter foundation stem wall is supported by a concrete footing.
6. The home has a crawl space.
7. There are stairstep cracks in the concrete block stem wall, along the northeast corner of the home, due to settlement. (see photos)
8. Due to a recent kitchen remodel, an additional support beam was added running east/west under the kitchen approximately six feet from the north wall.
9. The concrete block piers supporting the new wood floor beam is inadequate (see photos) and must have additional support by using SmartJacks.
10. Measurements taken along the east wall of the home indicates settlement as much as 1.3 inches below the original finished floor.
11. The cause of the settlement is unknown, but most likely due to a combination of soil erosion and decomposing organics in the supporting soil.



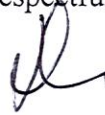
12. Soil borings were not taken.
13. It is likely that the settlement will continue to occur unless the foundation is stabilized.
14. To stabilize the foundation, we recommend installing 1 three inch helical pier at the east end of the north wall, and 6 three inch helical piers along the north end of the east wall, for a total of 7 three inch helical piers. See attached sketch.
15. Each helical pier shall be up to 14 feet long using standard brackets and spaced a maximum of 7.0 feet as shown on the attached sketch.
16. Pier spacing may exceed 7.0 feet to avoid placement directly under a door or window or to avoid interference with an HVAC unit.
17. To reinforce the beam that was added to support the kitchen floor, we recommend using 2 SmartJacks as shown on the attached sketch.
18. The design is based on the Florida Building (Residential) Code, 7th Edition (2020).

If you need additional information or have any questions, please call.

Donald
A Boggs

Digitally signed by
Donald A Boggs
Date: 2021.11.18
17:44:48 -05'00'

Respectfully,

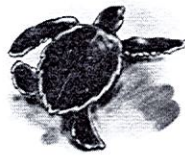


Donald A. Boggs, PE
FL PE 31054

This letter has been digitally signed and sealed by Donald A. Boggs, PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Attachments: Sketch and Photos





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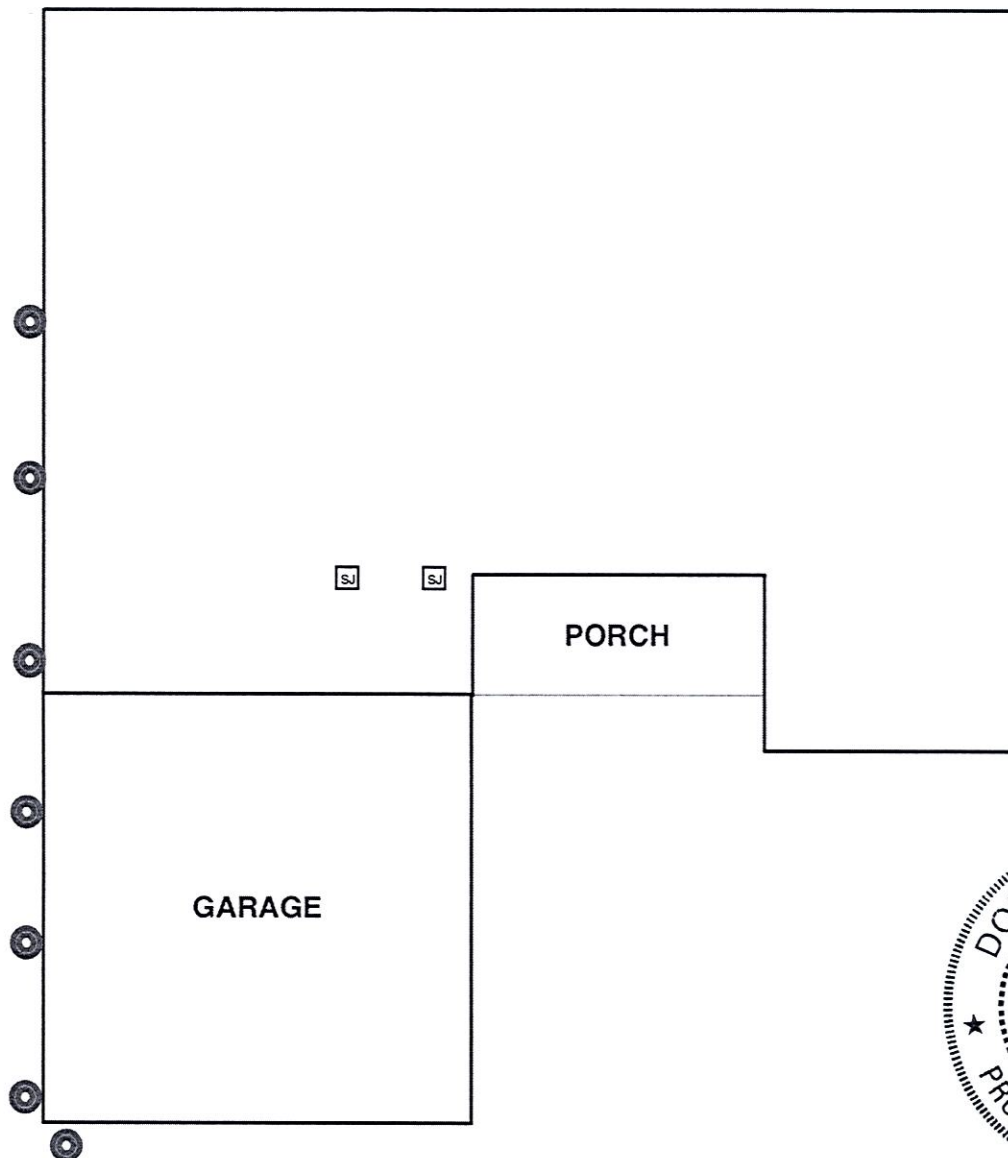
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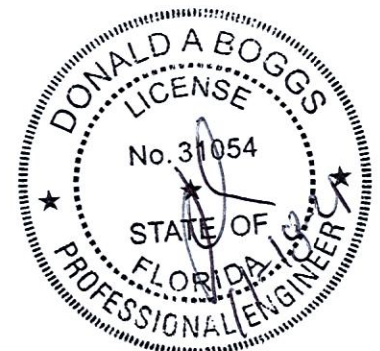
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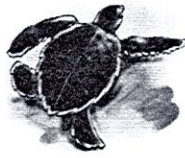
Foundation Stabilization 410 SW Merciful Place Fort White, FL 32038

November 17, 2021



- ⊙ 3" Helical Piers up to 14 feet long (7 Required)
Maximum Spacing is 7'-0" - See Letter for Exceptions
- SmartJacks (2 Required)





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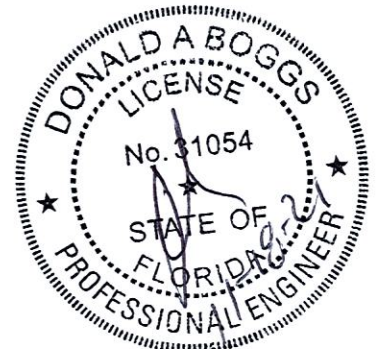
Photos – 410 SW Merciful Place, Fort White, FL 32038

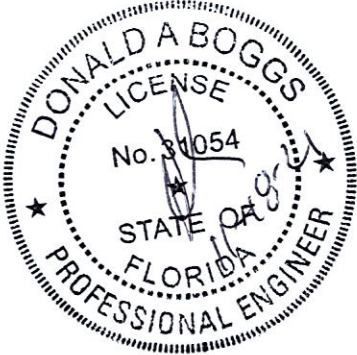
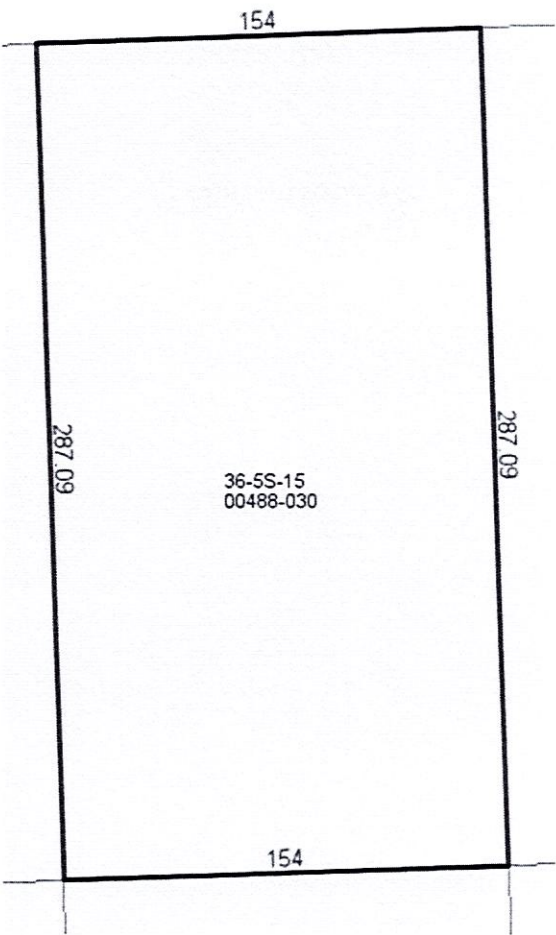


Front of house looking south.



Columbia County Property Appraiser's 2019 Aerial Photo





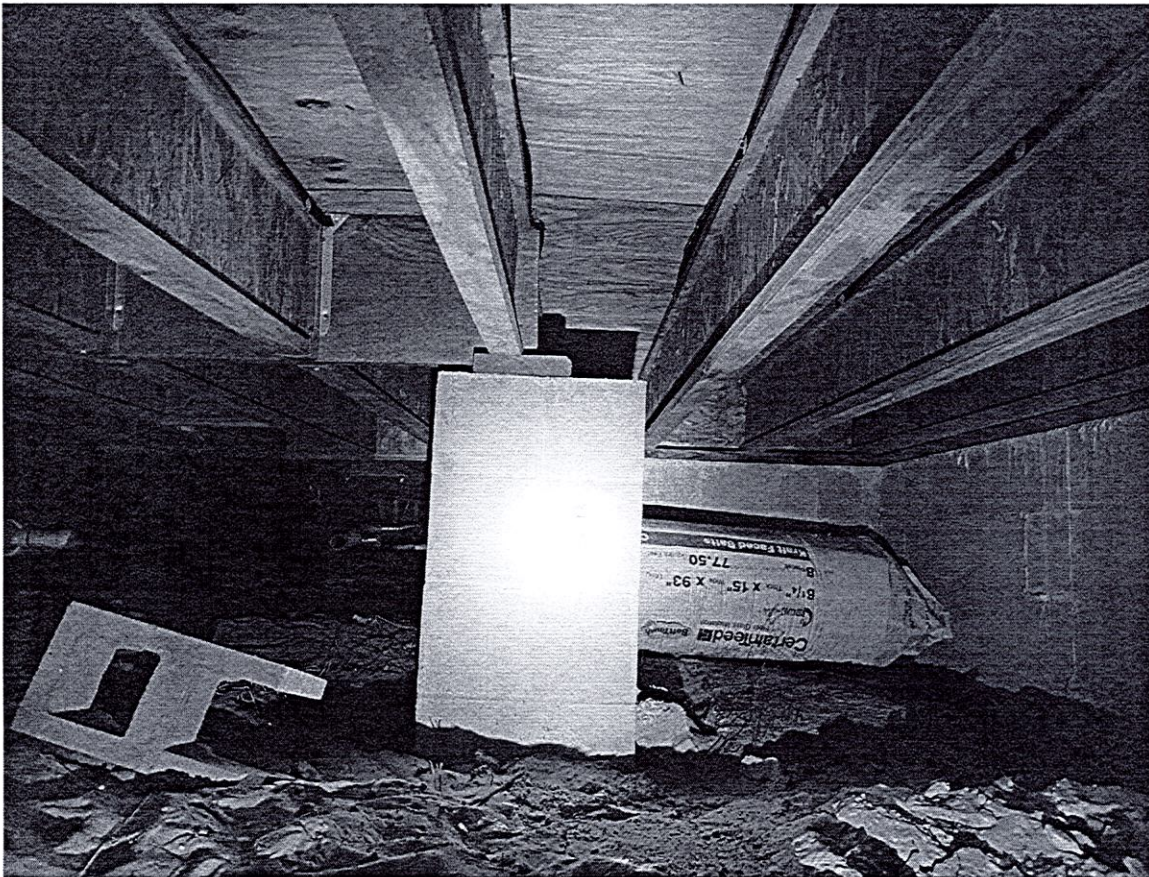
Columbia Country Property Appraiser's Property Map



Columbia Country Property Appraiser's Vicinity Map



Stairstep cracks in concrete block stem wall as seen in crawl space, due to settlement.



Previously added support beam under kitchen used inappropriate concrete block piers.