

Greg A. Brooks, P.E.
PO Box 2373
Freeport, TX 77542

March 29, 2023
979-229-0068

PRELIMINARY FOUNDATION INSPECTION REPORT: JOB NO. 23-LJ083

LOCATION: 159 Corkwood
Lake Jackson, TX

DATE OF INSPECTION: March 23, 2023

OBSERVATIONS:

This house consists of a single-story brick veneer wood frame structure constructed on a conventional slab foundation. Refer to this write-up and the attached drawing concerning the current state of the foundation and the perimeter foundation stabilization plan.

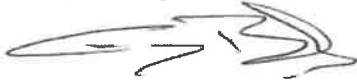
CONCLUSIONS:

The entire perimeter of the structure shows settlement, with the front, left and right perimeter showing significant foundation movement. The interior of the structure shows over 8" of settlement when comparing the back perimeter to the front perimeter. Exterior deficiencies show multiple brick veneer cracks throughout and multiple windows show significant separation from the brick veneer. See the attached drawing showing deficiency locations in more detail. The interior of the structure shows significant floor slope with sheetrock cracks in the ceilings, above door frames and adjacent to windows. Door misalignment is present throughout the interior of the structure. The foundation movement is due to seasonal moisture changes in the expansive clay soil over the life of the structure. I recommend that pressed piles be installed as shown in the attached drawing both to stabilize the foundation and to aid the house in bearing in a soil zone of constant moisture and firmer stratum of soil.

RECOMMENDATIONS:

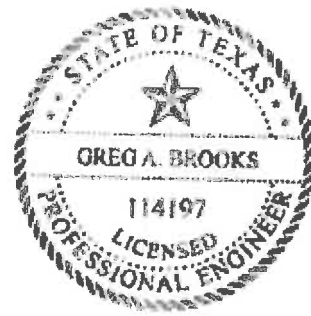
I recommend the installation of 47 perimeter and 20 interior pressed piles. The intent of the repair plan is to stabilize the settlement and adjust as necessary to correct door frame misalignment while minimizing cosmetic deficiencies. Due to the amount of settlement, the likelihood that floor slope still exist after the repair is high. Pile locations should be added as noted on the attached drawing. All work should be in accordance with the details and specifications as shown. These repairs should stabilize this part of the foundation for the remaining life of the house. The engineer will not assume any liability for any cracks created during leveling or for any new cracks or damage to the structure which may appear during the leveling procedure. Please note that I shall not control or have charge of, and shall not be responsible for, construction means, methods, techniques, sequences, procedure of repair, health or safety programs or precautions contained with the work and shall not manage, supervise, control, or oversee construction. Further, I shall not be responsible for the acts or omissions of the contractor or other parties on the project. I have provided the service in a professional manner that meets generally accepted practices in residential construction. My entire warranty and liability will be limited to the payment received for my work performed.

Respectfully submitted,



Greg A. Brooks, P.E. #114197
F-15269

3-29-2023





Exterior Deficiencies

- FR-Sep – Friez Board Separation
- DS – Door Separation
- WS – Window Separation
- HC – Horizontal Crack in Brick
- DC – Diagonal Crack in Brick
- BMC – Grade Beam Crack

■ Proposed Pressed Piles

Slope Readings shown in Red



Greg A. Brooks

3/28/2023

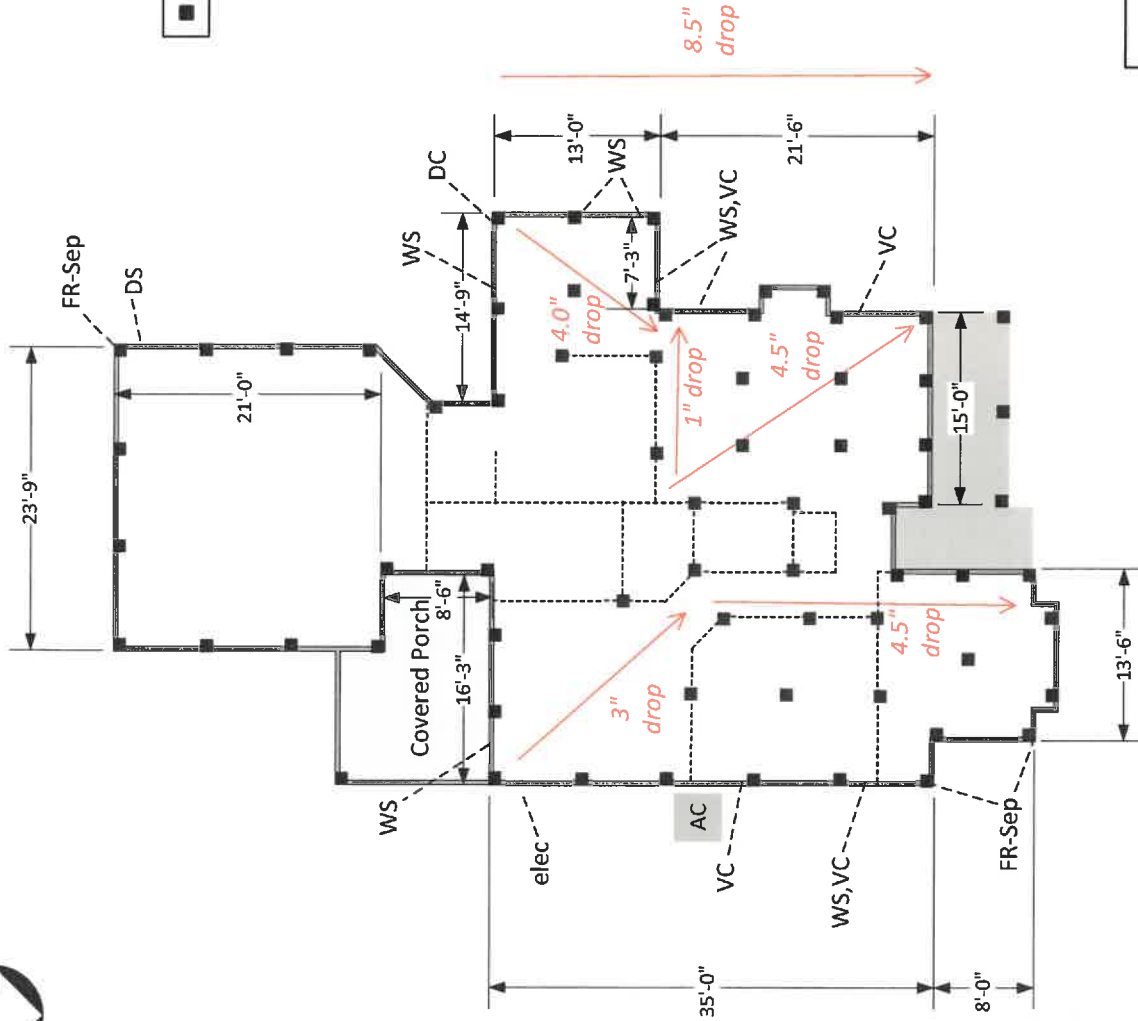
G A Brooks ENGINEERING LLC

Proposed Foundation Repair
159 Corkwood
Lake Jackson, TX

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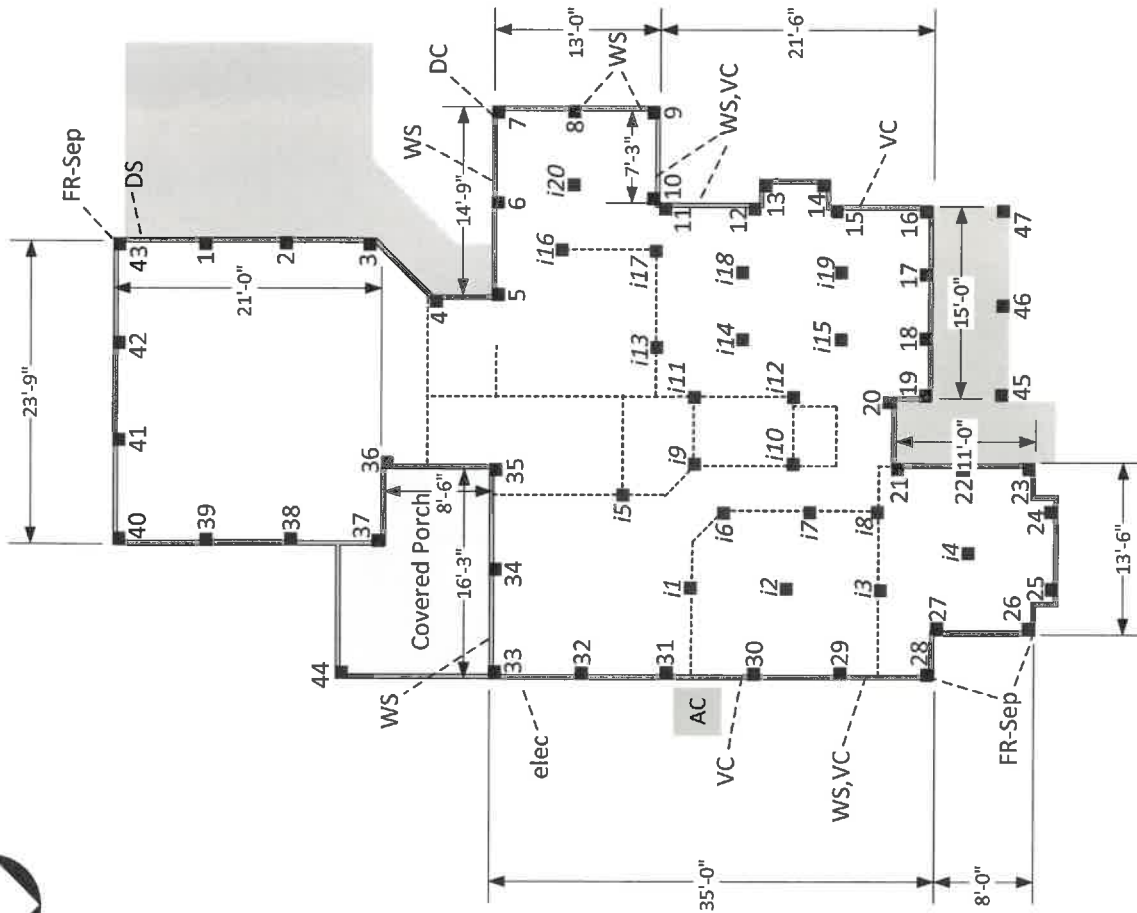
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SIZE L	JOB NO	DWG NO 23-L1083-01	REV 0
SCALE 1in = 15ft. 0in.	SHEET		1 of 3



0 ft. 9 ft. 15 ft. 30 ft.





Proposed Pile Placement

Piles 1-3 placed on 6'-8" centers
 Piles 3-5,7,9-16, placed at respective corner
 Piles 6,8,22 placed at center of respective wall
 Piles 16-19 placed on 4'-8" centers
 Piles 20,21,23, 26-28 placed at respective corner
 Piles 24-25 placed on 6'-0" centers
 Piles 28-33 placed on 6'-10" centers
 Piles 33-35 placed on 7'-9" centers
 Piles 35-36 placed on 8'-0" centers
 Piles 37-40 placed on 6'-8" centers
 Piles 40-43 placed on 7'-7" centers
 20 Interior Piles placed at respective location as shown on the drawing. Adjustments should be made once interior grade beams are found

Exterior Deficiencies

FR-Sep – Frieze Board Separation
 DS – Door Separation
 WS – Window Separation
 HC – Horizontal Crack in Brick
 DC – Diagonal Crack in Brick
 BMC – Grade Beam Crack

Proposed Pressed Piles

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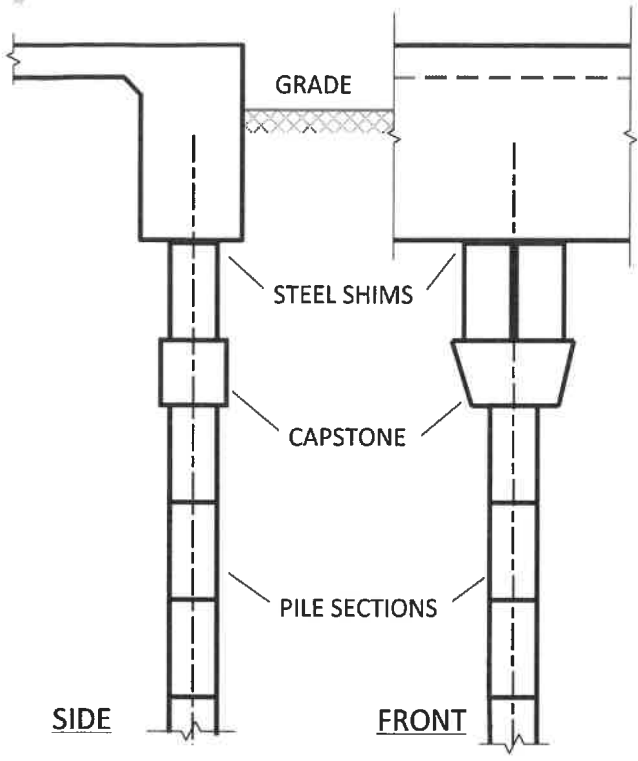
[Signature]
 3/28/2023

0 ft. 9 ft. 15 ft. 30 ft.

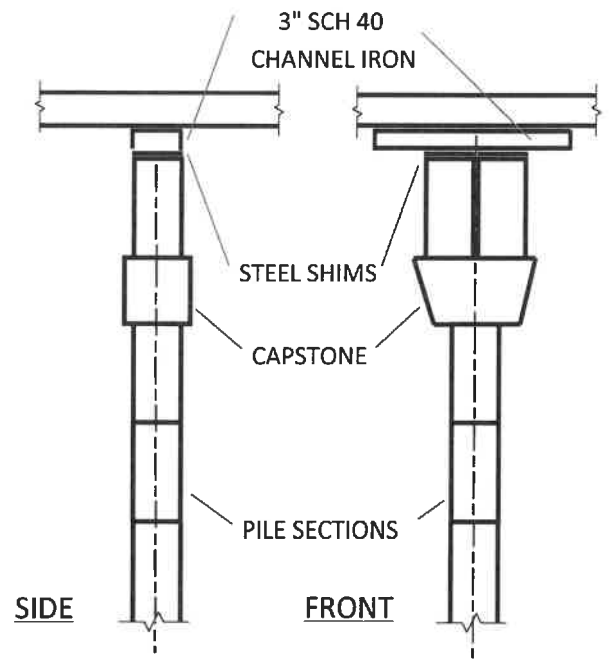


Proposed Foundation Repair
 159 Corkwood
 Lake Jackson, TX

SIZE L	JOB NO	DWG NO 23-LJ083-02	REV 0
SCALE 1in = 15ft. 0in.		SHEET 2 of 3	



SLABS WITH GRADE BEAM



SLABS WITH NO GRADE BEAM

NOTES:

1. Piles shall be placed at a maximum of 8'-0" in single story areas, 6' 0" in two story areas.
2. Pile sections shall consist of 6" diameter x 12" long cylinders. Square or rectangular blocks will not be permitted for use as pile sections.
3. Pile sections shall be installed by jack or hydraulic ram using the weight of the structure to provide the driving load.
4. Piles shall be driven until the foundation starts to lift or the driving load exceeds 6,500 psig
5. Elevate foundation on hydraulic jacks, hold in place with steel shims placed on top of 6" diameter cylinders placed on top of a rectangular solid 6"x6"x12" concrete capstone
5. Contractor to verify underground obstructions, and obtain required permits before beginning job.
6. After leveling, fill voids created, backfill holes and replant where applicable



Handwritten signature of Greg A. Brooks.

3/28/2023

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Proposed Foundation Repair 159 Corkwood Lake Jackson, TX				
PO Box 2373 Freeport, TX 77542 gregbrookspe@yahoo.com (979)229-0068	SIZE L	JOB NO	DWG NO 23-LJ083-03	REV 0
SCALE 1in = 15ft. 0in.	SHEET 3 of 3			