

FOUNDATION INSPECTION REPORT

Job No. LC081820

Prepared for:
Kelly Elliott**Prepared by:**
Cliff Nguyen, P.E.
TRM Engineering, LLC**Location:**
118 Highland Terrace Drive
League, TX
on 8/18/2020**Scope:**

At your request, the purpose of this evaluation is to provide a guideline for the installation a wood framing wall to be used to enclose an existing metal framed pavilion. The evaluation is based *International Residential Code*, by Texas Section American Society of Civil Engineers, and *Guidelines for the Evaluation of Foundation Movement for Residential and Other Low-rise Buildings*, by The Foundation Performance Association. This inspection procedure is neither extensive nor exhaustive.

The scope of this inspection does not include verification of existing foundation supports or prior foundation repair work. Additionally, this inspection does not include the determination plumbing leaks, which can attribute to differential movement in the foundation affecting its performance. The client may wish to have the plumbing system tested by a qualified plumber.

The information provided in this report is for the use of the person to whom this report is addressed, and is no way intended to be used by a third party who may have different requirement and objective.

Property Description:

The inspected property is located at 118 Highland Terrace Drive, League City, TX. The main house is a one-story with wood framing, brick veneer and siding on concrete slabs, and composition shingle roof. The addition in the back of the house include a second story living area with unfinished first floor. The house was occupied at the time of the inspection. The weather was clear and dry.

Observation and Data:

Exterior foundation distress symptoms are shown on SKETCH 1. There are some brick cracks along the front side of the house. There is a large tree in front the front-left side of the house with roots potentially extending underneath the foundation causing the soil to shrink.

Interior foundation distress symptoms are mostly on the left side of the house. There are several doors that are skewed or jammed, sheet rock cracks above the doors and ceiling as shown in SKETCH 1. The crack above the opening in the back side of the main house and along the wall to the second story are not attributable to foundation movements. The floor in this area is within acceptable levelness.

I checked the floor levelness throughout the house using a 4-foot leveler and self-leveling laser. The floor, counter tops, windowsills, and door framing were cross checked. The floor levelness is within acceptable tolerance of 1% rise-over-run except for the areas shown as arrows in SKETCH 1. However, floor levelness is not a sole consideration for foundation repair. Extent of any damage must be

considered and evaluated if they are cosmetic, functional, or hazardous before I recommend any repair work.

Recommendations:

After careful consideration of distress symptoms, foundation profile, and contributing factors, I recommend the following:

1. Install sixteen (16) piles in the left side of the house as shown in SKETCH 1 to stabilize this area. This area of the house has numerous deficiencies. This side has nearby trees. Trees remove moisture from the soil and cause the foundation to drop and move.

The piles are to be located as shown in SKETCH 1. The proposed piling system is shown in SKETCH 2, TYPICAL PRESSED PILES. These repairs should stabilize these parts of the foundations of the house. Areas of the foundation without underpinning (piles) can still experience differential movements. House leveling carries its own risks. The leveling procedure may cause damage to adjacent parts of the structure. The engineer will not assume any liability for any cracks in the dry wall or ceramic tiles, or cracks that do not close completely during leveling, or for any new cracks or damage to flooring or roofing which may appear during the leveling procedure. During the leveling process, and additional piles maybe necessary. Stabilizing the foundation is not expected to make perfect or repair all distressed symptoms or damages.

For the piling system to perform properly, soils under and around the foundation must be maintained to a consistent moisture level. A conscientious watering plan must be implemented, and storm water must drain away from the foundation.

Limiting Conditions:

This inspection includes visual observations of only those portions of the foundation and structural components readily visible and accessible. Any items causing visual obstruction were not moved. As constructed foundation levels, concrete & steel reinforcing tests, and location specific soil analysis are not included in this visual inspection. The opinions and judgments stated in this report are based on as found observations. The deficiencies noted do not necessarily represents all defects in the house. If the house had been repainted or remodeled, deficiencies could have been masked and not discovered.

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 have charge of 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 and workmanlike manner and to standards not less than those generally accepted in the industry. My entire warranty and liability will be re-performance or refund of the payment received.

Certification:

I certify that I conducted the assessment of the foundation performance of the property located at 118 Highland Terrace Drive, League City, TX on 8/18/2020. The findings and conclusions in this report are stated without bias.

Respectfully submitted,

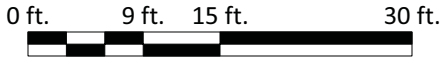


8/19/20



Cliff Nguyen, P.E.
TRM Engineering, LLC
F-16126

Attachment: 2 sketches

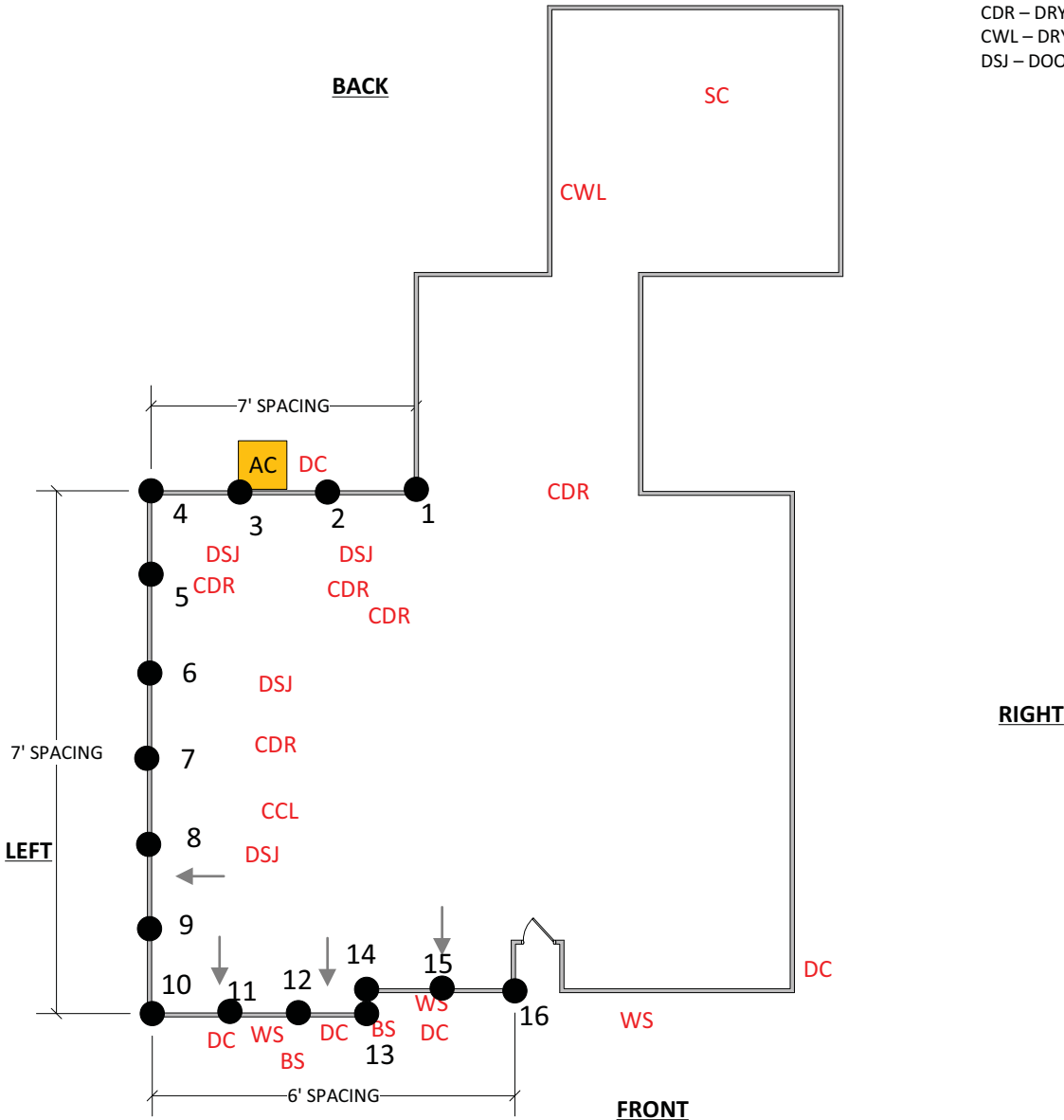


EXTERIOR DEFICIENCIES

- BS – FRIEZE BOARD SEPARTION
- DC – DIAGONAL CRACK IN BRICKN
- SC – EXPOSED SLAB CRACK
- WS – WINDOW FRAME & BRICK SEPARTION

INTERIOR DEFICIENCIES

- CCL – DRYWALL CRACKS IN CEILING
- CDR – DRYWALL CRACKS OVER DOORS
- CWL – DRYWALL CRACKS IN WALL
- DSJ – DOOR SKEWED/JAMMED



NOTES:

1. IF EXISTING PILES ARE FOUND, THEY CAN BE USED IF OPENED & TESTED. OTHERWISE, NEW PILES ARE TO BE INSTALLED NO CLOSER THAN 2FT.
2. PILE-DRIVING RECORDS AND POST-LEVELING ELEVATIONS SHALL BE FORWARDED TO ENGINEER FOR REVIEW.
3. PILE HOLES ARE TO REMAIN OPENED FOR INSPECTION BY ENGINEER.
4. REPAIR CONTRACTOR TO VERIFY UNDERGROUND OBSTRUCTIONS, OBTAIN REQUIRED PERMITS.
5. AFTER LEVELING, FILL VOIDS CREATED BY MUDJACKING, BACKFILL HOLES, AND REPLANT WHERE APPLICABLE.

TRM Engineering, LLC
Firm Reg. # F-16126

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3101 Mason Grove Ln.
Pearland, TX 77584

TRMclif@gmail.com
832 779 7793

DEFICIENCIES

JOB LOCATION AND CONTACT

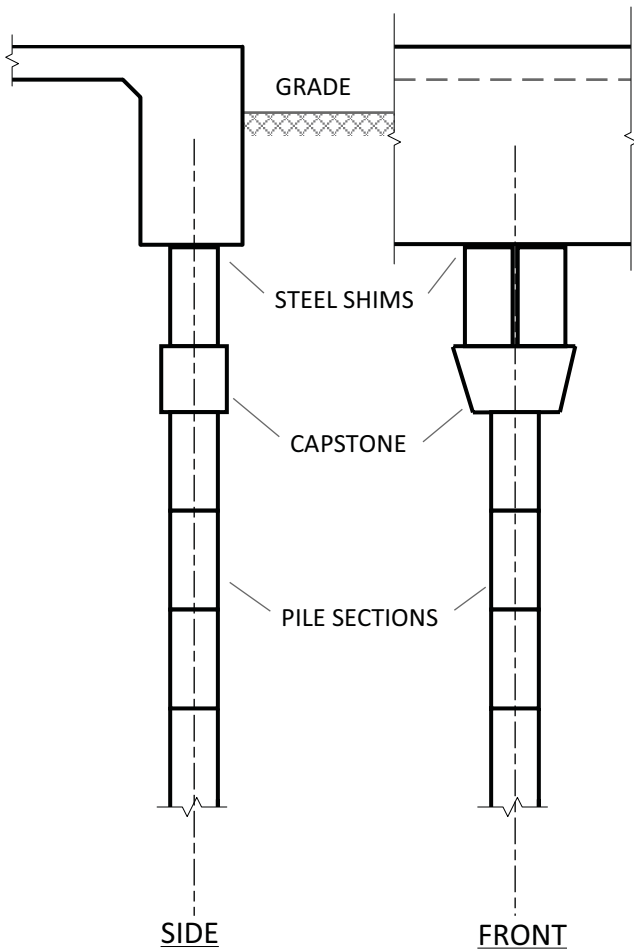
118 Highland Terrace Drive, League City, TX

3101 Mason Grove Ln. Pearland, TX 77584	SIZE L	JOB NO LC0081820	DWG NO SKETCH 1	REV 0
TRMclif@gmail.com 832 779 7793	SCALE 1in = 15ft. 0in.		SHEET 1 OF 2	

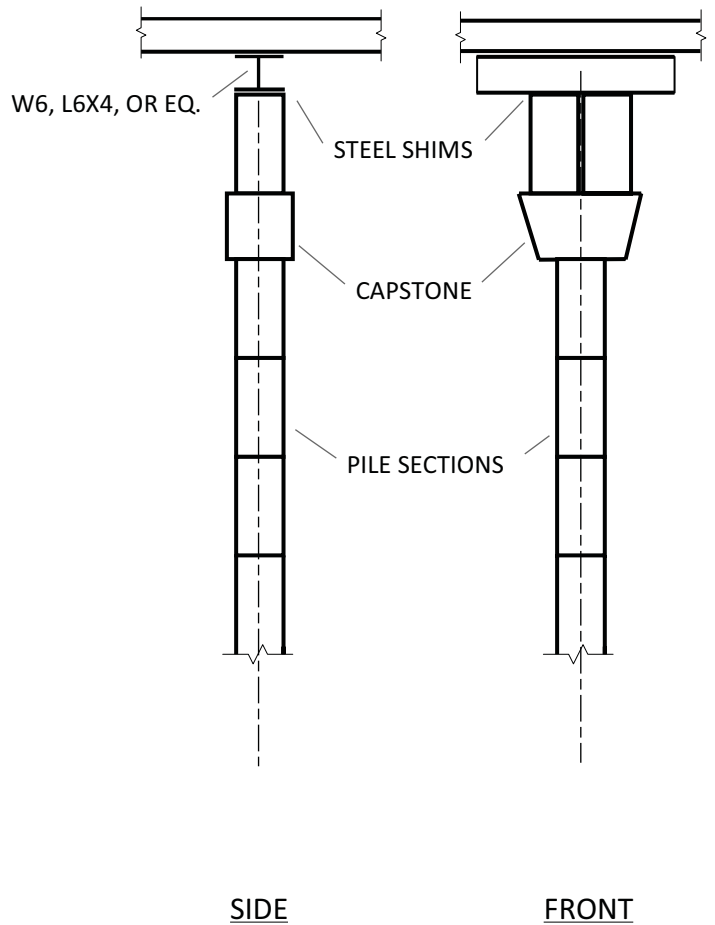


Cliff H. Nguyen

8/19/20



SLABS WITH GRADE BEAM



SLABS WITH NO GRADE BEAM

NOTES:

1. LIFTING & LEVELING OF CONCRETE SLAB SHALL BE IN ACCORDANCE OF LOCAL BUILDING CODES.
2. PRESSED PIERS SHALL BE SPACED AS SPECIFIED, 8 FT. C/C. MAX. ONE-STORY, 6 FT. C/C MAX. TWO-STORY.
3. PIER SECTIONS SHALL BE PRE-CAST 6" DIA. X 12" LONG CONCRETE, 6,000 PSI COMPRESSIVE STRENGTH MIN.
4. ALL PIERS SHALL PRESSED TO LOAD-BEARING STRATA AND/OR A MIN. OF 6,000 PSI OR TO "JACK REFUSAL".
5. SHIMS ARE TO BE ROLLED PLATE STEEL AND MIN. SIZE OF 4" X 4" AND THICKNESS OF 1/2", 1/4", and 1/8".
6. USE W6x15, L4x4x1/2, OR EQ., 3FT. LONG WHERE GRADE BEAM IS NOT AVAILABLE.
7. PILE DRIVING RECORDS, AND HOLES ARE TO BE UNCOVERED FOR ENGINEER'S INSPECTION.
8. ENGINEER'S APPROVAL IS REQUIRED FOR DEVIATIONS FROM PLAN.

<p>TRM Engineering, LLC Firm Reg. # F-16126</p> <p>This document is the property of TRM Engineering, and the information contained within is confidential and privileged. It may not be copied or distributed without written consent from TRM Engineering.</p>	TYPICAL PRESSED PILES			
	<p>JOB LOCATION AND CONTACT</p> <p>118 Highland Terrace Drive League City, TX</p>			
3101 Mason Grove Ln. Pearland, TX 77584	SIZE L	JOB NO LC081820	DWG NO SKETCH 1	REV 0
TRMcliff@gmail.com 832 779 7793	SCALE NTS	SHEET 2 OF 2		



Cliff H. Nguyen
8/19/20

Do-Rite Foundation, LLC
Professional House Leveling
Office: (713)498-1937 Fax: (281)820-2359

Invoice

Bill To: Kellie Elliot

Property Address: 118 Highland Terrance League City, TX.

Phone: 936-000-0000

Fax: 713-000-0000

Date: September 17, 2020

*Contractor will level structure as close as possible,
Down Payment Required On Saturday Morning
September 19, 2020.*

Total Amount \$2,800.00

Down Payment \$1,500.00

Balanced Owed \$1,300.00

Kellie Elliot

*Please make checks payable to Do-Rite Foundation, LLC.
Thank You for your business!*