

Initial Report for Foundation Assessment

Date: January 13, 2017
Attention: The Client
Subject: Foundation Review
123 Sample St., Fort Worth, Texas

Authorization and Scope:

Nortier Engineering Consultants, LLC (NEC) has been retained by the Client to perform a review of the slab on grade foundation system of the 1 story residential home with brick veneer located at the subject address referenced above. This report provides guidance as to whether or not the existing foundation system is in need of repair. The report also proposes a recommended plan if repairs are needed.

Conclusions/Specific Recommendation:

NEC performed a visual examination of the foundation for the subject property on 1/13/2017. NEC also performed a floor survey using a Zip-level Pro-2000 series, collecting relative floor elevations, to aid in surface topography mapping of the floor(s). Elevations shown are adjusted for the type of flooring encountered to reflect a consistent measuring plane. The map of the existing floor elevations can be seen in the figure attached to this report.

Based on review of the foundation, and reasonable professional engineering opinion, we've determined that settlement of the foundation has occurred and should be repaired. Although complete levelness cannot be guaranteed, or may not be attainable, the proposed plan should improve the performance of the foundation. **It is recommended that twenty-one (21) piers be installed as indicated on the figure(s) attached to this report.** Locations of internal piers [if needed] are intended to be approximate. The Contractor should locate the beams and place internal piers accordingly. **Furthermore, the proposed foundation repairs shall meet or exceed the 2015 International Residential Code (IRC) and any local applicable amendments to the IRC.**

This report is solely based on information gathered during our site visit on 1/13/2017, and does not take into consideration any changes in condition of the foundation or soils after the date which the information was gathered.

General Recommendations:

It is recommended that the soil be graded such that the bottom portion of the foundation is below grade, as per the governing code and a watering system be utilized around the perimeter of the house. Fluctuations in moisture content of the soils near the foundation of the house can cause differential settlement. If the moisture content is kept consistent, the potential for differential movement is mitigated.

It is also recommended that the plumbing systems be checked after any repairs are made to the foundation system. Vertical movement of the foundation system can impose stresses on the plumbing infrastructure and cause leaks.

Furthermore, grading around the perimeter of the building should be maintained as sloping away from the foundation at a minimum of 6 inches fall within the first 10 feet from the foundation. Such grading configuration should prevent localized water accumulating around areas of the foundation. Saturated soils decline in bearing capacity and can result in differential settlement of the foundation.

Limitations:

This report is intended for information purposes only, and the sole use of the client and/or homeowner. The scope of this report is limited to the items related to the foundation system only, and it is understood that detection of all existing or potential defects is not feasible for this type of evaluation. The intent of this report does not include judgment on any of the superstructure, detached buildings, retaining or privacy walls, concrete reinforcement, and/or site drainage. In addition, the scope of this report excludes material and soil sampling/testing, procedures and as such were not performed. The report is not to be used by others for any purpose without our written consent. Compliance with any code or specification other than as expressly noted in this report is specifically excluded. It is the responsibility of any Contractor to abide by any other applicable codes or specifications.

No warranty for any repairs, future foundation performance, structure, vegetation, or soils at the subject property are offered by this report, nor does this report imply any liability to NEC, nor Daneel Nortier, PE for any work to be performed as a result of this report. It is understood that soils in this area experience movement due to moisture fluctuations. Such soil movement could cause the foundation to move after the recommended repairs have been made. Any provided floor elevation data and recommended actions are based on soil conditions as they exist at the time of the evaluation. NEC does not warrant or imply that other problems may not occur in the future. No warranty, expressed or implied, is made or intended and the limit of liability shall be limited to the fee paid for this report at the time of evaluation.

Report Prepared by,
Nortier Engineering Consultants LLC
Texas Engineering Firm (F-16800)

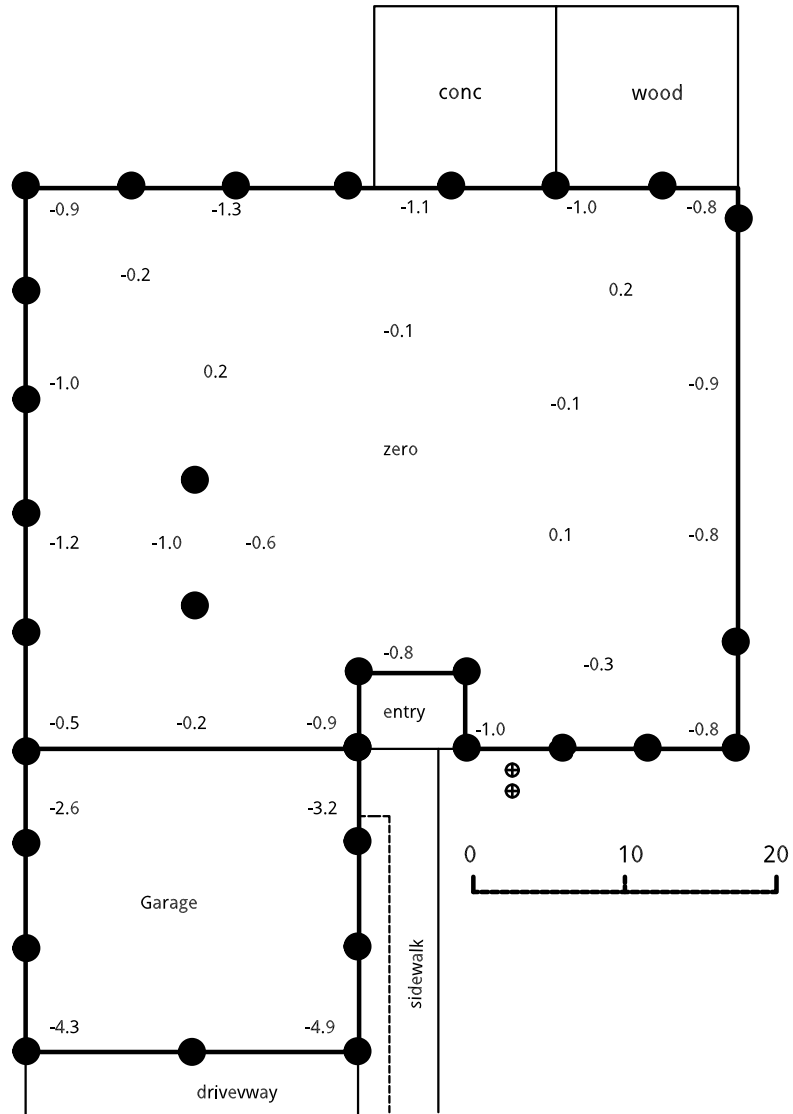
1/13/2017
Daneel Nortier, P.E.
Professional Engineer (TX #113157)

Engineers Seal

- ⊕ cleanout
- Existing Pier
- Proposed Pier

elevations shown in tenths of an inch

Engineers Seal



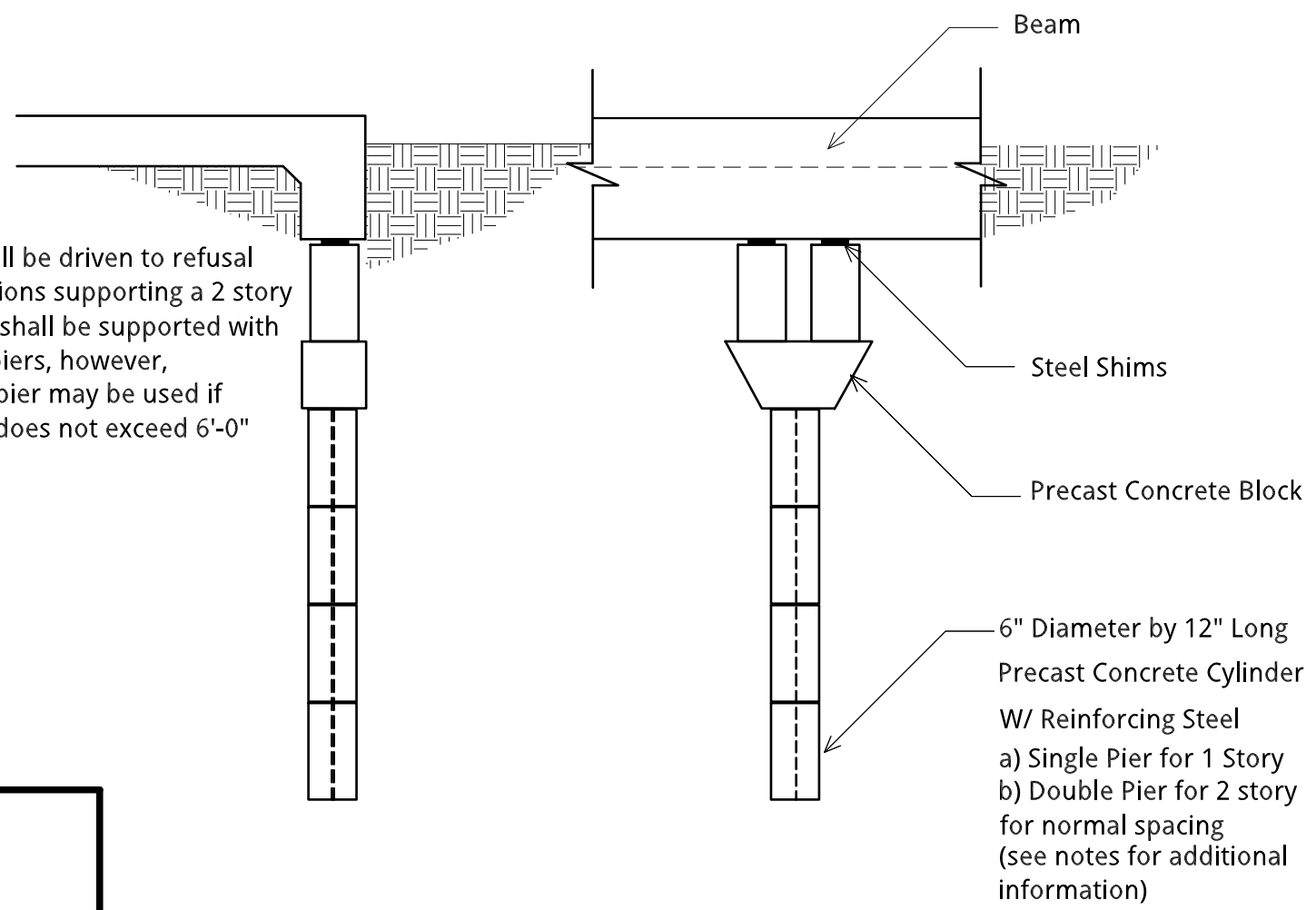
9/9/2016
Firm # - 16800

123 Sample Street
Fort Worth, Texas



NOTES:

- 1) Piles shall be driven to refusal
- 2) Foundations supporting a 2 story building shall be supported with double piers, however, a single pier may be used if spacing does not exceed 6'-0"



Engineers Seal

8/26/2016
Firm # 16800

Precast Concrete Pier Detail Diagram
Not to scale

