GEOTECHNICAL CONSULTANTS, INC.
11918 Warfield Drive, San Antonio, Texas 78216
Office (210) 344-8144 Fax (210) 349-6151
Toll Free: 1-888-525-7955
e-mail: geotechnical@sbcglobal.net

July 14, 2026

Anna Meissner

Subject: Report of Structural Evaluation
Home at 4431 Pebble Hill
San Antonio, Texas
TBPE Registration: F-409
Project Number: 26413

On July 14, 2026, we observed the home at 4431 Pebble Hill in San Antonio, Texas to evaluate the structure and foundation. Relative floor elevations were measured and published geologic and subsoil information were consulted. The roof and the plumbing, electrical and mechanical systems were not included in the evaluation. Our observations and evaluation are summarized in this report.

Description

The home, built in 1981, is a two-story structure with exterior brick and vinyl siding. It is supported on a slab-on-grade foundation on a corner, zero-line lot. Medium sized trees are in the yards. Photograph #1 is a view of the front of the house.



Photograph #1 – Front view of the house.

Observations

Moderately light distress was found on the exterior and in the interior of the house that could be attributed to foundation movements. The more significant distress is described below.

Exterior

- ❑ A crack was seen on the garage side.

Interior

- ❑ The doors swing. Wall-ceiling seam is cracked in the dining room. Ceiling seam is separating in the living room. Concrete cracks were noted in the garage. Vertical seams are compressed over the kitchen doors. In the upstairs den, wall-ceiling seam is separating, closet door is misaligned, seam is separating at the column wall.

Elevation Measurements

Relative elevation measurements were made on the living area ground floor using a Sokkia C31 automatic, optical level and differential leveling methods. Elevations were referenced to a common plane by adjusting for variations in floor covering thicknesses.

Measurements show the floor to be higher at the dining room, living room, and kitchen exterior side. The floor then slopes toward the lowest elevations at the master bedroom and bathroom exterior side. Overall elevation change in the living area is 8-1/4 inches (0.69 feet). Elevations are shown in the attached sketch.

Soil Condition

The *Geologic Atlas of Texas, San Antonio Sheet* shows the project area to be underlain by the Pecan Gap Chalk Formation of the upper Cretaceous Period, Cretaceous Era. Seldom exposed chalks and chalky marls that become more calcareous to the westward comprise the formation. Chalks and marls are very light yellow to yellowish brown and weather to form moderately deep clay soil. Formation thickness is 100 to 400 feet, thinning to the westward and eastern Medina County.

Evaluation

Drought conditions cause foundation movements to occur in homes that have been stable for some time. Differential soil movements occur as soil moisture varies with changing climatic conditions. Swelling is less than shrinkage due to foundation loads and overburden soil pressure and after a few years, foundations may develop domed shapes with the interiors high and the perimeters, particularly the corners, lower. Soil characteristics and foundation stiffness more often cause foundations to tilt while remaining plane or to develop combinations of curved and plane surfaces. Movements are largest in the years immediately following construction and, after 15 to 20 years, become small or sometimes cease completely.

Slab-on-grade foundations are designed to limit differential movement of the superstructure resulting from foundation movements to a magnitude that will not damage the structure, usually one to 1-1/2 inches. Often, however, movements are larger than normal and cause cracking of sheetrock and brick, stone or stucco exterior finishes. In this house, differential slab movements are well above the range considered normal with moderately light distress attributable to foundation movements.

Weather conditions cause foundation movements to occur in homes, especially dry weather conditions as seen in south Texas. Due to the distress and differential elevation changes at the master bedroom side, foundation underpinning is recommended at the locations shown in the attached sketch. Pier spacing in the drawing reflects approximately six feet apart. Pier spacing may vary due to the type of pier such as cylinder piers, cast-in-place concrete piers, or steel piers. Foundation underpinning will stabilize the foundation but lifting will be limited and leveling will not be accomplished.

We appreciate this opportunity to be of assistance. This report has been prepared for the exclusive use of Anna Meissner for the home at 4431 Pebble Hill in San Antonio, Texas, and may not be relied upon by other parties without authorization from Geotechnical Consultants, Inc. Our observations, measurements, and opinions follow current, local engineering practices. No other warranty, expressed or implied, is made. Please call if there are any questions or if we may be of further service.

Very truly yours,
GEOTECHNICAL CONSULTANTS, INC.

Sarah S. Hancock-Gamez, P. E.



Attachments: Foundation Underpinning Plan

Copies submitted: 1 - Client Email/1 – File