

VIA EMAIL: [frank@rmlandmark.com](mailto:frank@rmlandmark.com)

May 14, 2013

Frank Roberts  
ReMax Landmark  
113 N. Frances Street  
Terrell, TX 75160

Re: Foundation Inspection  
605 Van Zandt CR 3821  
Wills Point, Texas 75169

TO ALL INTERESTED PARTIES:

This letter constitutes the engineering opinion requested by you on the foundation at the above captioned property. This opinion is based on the experience and judgement of the writer and on conditions observed without taking soil samples, performing plumbing tests, removing floor or wall coverings or otherwise damaging the structure or finishes. The purpose of this inspection was to evaluate the foundation. I visually inspected the home on May 14, 2013. This inspection meets the requirements of a "Level A" examination as defined by the Texas Section of the American Society of Civil Engineers. This inspection and report is made without prejudice to any party, buyer or seller, as required by the Texas Practice Act of Engineering and its Professional Conduct and Ethics, and is an objective evaluation of the foundation of this house.

The house was built in 1979 according to records obtained by the Van Zandt County Central Appraisal District. An examination was made at the exterior of the house to observe any anomalies which may exist in the exterior finishes of the house. There were no anomalies observed in the exterior veneer which would indicate any abnormal or significant foundation movement. All frieze boards fit properly and no separations were observed around any of the window and doors of the house. No mortar joint separations or cracks in the exterior veneer were observed demonstrating the foundation has been stable since the house was built.

An inspection of the interior finishes inside the house revealed no anomalies indicative of foundation distress. All of the doors inside the house fit and operate properly. The tile/brick floors throughout the house have no cracks, demonstrating no evidence of foundation movement. None of the joints in the trim/molding in the house show any signs of separation. There were no signs of any extensive drywall repairs found on any wall in the house. There is no evidence that any significant or abnormal foundation movement has occurred at the house. No drywall cracks were observed in the walls and ceilings of the house. Some random elevation

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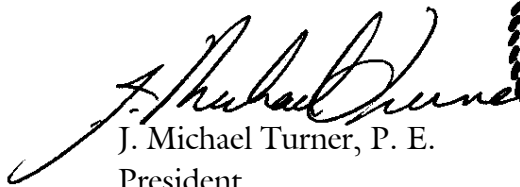
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readings were taken inside the house to confirm the visual observations made by this writer. The elevations taken showed an overall differential of 1.2". This is well within the allowable deflection criteria of L/360 (1 inch in 30 feet) established by the Federal Housing Administration (FHA). Placement tolerances for concrete slab foundations is  $\pm 3/4$ " as defined by the American Concrete Institute (ACI), and this house is even within that tolerance without consideration to the allowable normal movement of the slab.

It is my opinion this foundation is very stable and is performing very well at this time. The notion that foundation is experiencing abnormal movement is not supported by the observations made by this writer. The severe changes in moisture content of the soils under the house since the house was built would test the stability of any house. This house has performed very well under adverse weather conditions, including the record drought conditions in 2011 and 2012. Any repairs made to the house's foundation would clearly create conditions which would be unacceptable, including but not limited to, cracks in the walls, trim joints separating, hard floor coverings cracking, and doors not operating properly.

This concludes this report. The attached Guidelines for the Maintenance of Slab on Ground Foundations is provided for your information and use. If I can be of any further assistance or if you should have any questions, please do not hesitate to contact me. This report is based on the observed conditions on this date, which are subject to change. No foundation warranty is expressed or implied by this report. The limit of liability to Olden Associates is limited to the amount of the fee received for this report.

Sincerely,  
OLDEN ASSOCIATES

  
J. Michael Turner, P. E.  
President



Texas Professional Engineer No. 50896  
Texas Engineer Firm No. F-001470

Enclosures - Guidelines for Maintenance of Slab on Grade Foundations

## **MAINTENANCE OF SLAB ON-GROUND FOUNDATIONS**

Foundation problems associated with expansive clay are usually caused by the lack of moisture in the soil which shrinks when dry and results in foundation deflections and settlements. When the moisture content of the active supporting soil at the perimeter of the foundation is maintained uniformly, the chances of foundation failure are greatly alleviated.

Before any foundation maintenance can be effectively implemented, it is imperative that proper drainage is provided. This could necessitate some recontouring of existing grade, placing fill dirt at perimeter grade beams, placing splash blocks at downspouts to prevent soil erosion and other specifics peculiar to a particular site. Water should always run away from the house and there should be no ponding of water near the foundation. Care should be taken to insure that soil is from one to two inches below to the top of the perimeter grade beam. The soil should be sloped approximately one inch per foot to drain at least eighteen (18) inches from the perimeter of the foundation.

The moisture content of the soil at the perimeter of the foundation should be slowly increased and maintained during all seasons. This is best accomplished by placing soaker hoses eighteen (18) inches from the foundation and regulated to a flow of one fourth ( $\frac{1}{4}$ ) inch in height until the water is observed standing on the ground. The volumetric expansion of the active soil will now provide uniform support for the foundation. Watering should be repeated when drying cracks are observed or when the soil is evidently dried.

Trees and shrubbery can produce an adverse effect on the foundation. Their roots sap moisture from the soil, both at the perimeter and under the slab. This lowers the moisture content of the active supporting soil at various places which can cause differential movements of the foundation. In certain instances, root severing at the foundation may be recommended.

Guttering is not necessary where proper drainage is provided. On gabled ends or sides of the house, there is no run-off so more watering will probably be required. During hot and dry seasons, the South and West sides may require more watering than the North and East sides, which are shaded and not exposed to as much direct sunlight.

Most major foundation movements can be prevented if the active supporting soil is well maintained. The extent of distress transmitted to the structure would be lessened and the service life of the residence would be considerably increased.