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Structural Inspection

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For: Mr. Charles Courtney
325 Quill Ct
Slidell, La 70458

Richard Hite
203 Little Gull
Slidell, LA 70461

Construction:
Single-story, wood frame with brick veneer, ceramic/carpet and wood flooring, composition shingle roof on a conventional foundation.

Scope:
This inspection is limited to a visual inspection of the shell of the home, including the interior and exterior foundation of the residence. No inspection of the mechanical or electrical systems was performed. This report is as outlined by the National Academy of Building Inspection Engineers Standards and Practices for Residential and Small Building Property Condition Surveys. This report is not an explanation of cause, effect, or engineering.

History:
Dammon Engineering was contacted to perform a structural inspection of the referenced home due to a prior home inspection that noted elevation differences in the foundation. The primary areas of concern were in the rear breakfast area of the home.

It was stated that during Hurricane Katrina a tree fell on the right rear corner of the home, damaging the roof. Repairs were made at that time.

Findings:
An inspection of the exterior of the home revealed two small hairline cracks in the foundation located below the brick line on the right side of the home near the kitchen. There are several areas where the brick lintel is exposed around the windows and the mortar has fallen out. The down spouts in the front of the home are not connected to subsurface drainage.

The down spouts in the rear of the home are connected to perforated pipes and directed to the rear of the home.

Upon entry to the interior of the home, the difference in elevations in the rear of the home are apparent; the elevation differences were noted in the master bedroom and breakfast area. A Zip Level was used to identify the lows and highs of the foundation throughout the house. (See attached sketch). Please note some of the elevations will differ with different types of flooring thickness.

Analysis:
There are several circumstances adversely affecting this foundation.

This foundation has been subjected to past flooding from Hurricane Katrina. When a foundation is flooded and water gets beneath the slab, the water causes additional soil compaction and the subsequent receding floodwater often leaves a void between the soil and the foundation. Over time, the foundation settles until it hits the lower level of the soil, often resulting in cracking of the foundation.

The drainage off the roof in some areas is allowed to seep into the earth near the foundation and is subsequently eroding the soil that is supporting the foundation.

Structures typically show signs of settlement in the sheetrock at the heads of doorframes and windows; this is due to the fact that they offer minimal structural support. During the inspection no sheet rock stress cracks were found around these particular areas.

Conclusion:
All foundations settle. Usually everything settles together, and the fastest rate of settlement occurs in the first year after construction. By the fifth or sixth year the settlement has exponentially slowed to where there is little danger that something will happen unless caused by weather, expansion & contraction, tree roots, improper drainage, etc.

The cracks in the slab do not appear to have compromised the structural integrity of the home. It is my opinion that the structural integrity of this slab is currently sound, but the foundation will expand and contract with the ground movement and any additional flooding.

It is recommended that all the down spouts have proper subsurface drainage to the rear of the home. It is also recommended that all the areas that are noted to have settled be stabilized to ensure no more settling.

Sincerely,

Brian A Mistich, P.E.

This inspection is limited to the apparent visual conditions of the structural components of this building. It does not cover, nor attempts to cover, any components, items, and/or conditions which, by their nature or location, are concealed or are difficult or hazardous to inspect, or which require the moving of furniture, flooring materials, rugs, fixtures, appliances, or any component-part nailed, bolted, or screwed down or shut. No opinions are expressed regarding conditions which could be discovered only by the disassembly of any component parts, special testing, or removal of any concealing objects.

Inspections are made under normal weather conditions, and are not opinions of the conditions of the property and/or structure which may exist under unusual weather conditions, such as, but not limited to floods, heavy rains or snows, high winds, temperature extremes, or any act of God. Specific hazardous wastes, toxic substances, toxic mold, air and water quality, communicable diseases, asbestos, soil, environmental, radon, carbon monoxide, formaldehyde, building code and termite conditions are not included in this report unless otherwise stipulated.

This report is not a warranty or guarantee of the property inspected, but it is our opinion of its condition at the time inspected. Our liability shall be limited to reimbursement of the total cost of inspection.