



Structural Inspection

August 9, 2012

For: Mr. Jeff Dicke
542 Winbourne Dr.
Slidell, LA 70461

Re: 542 Winbourne Dr.
Slidell, La.

Construction:

Single-story, wood frame with brick veneer and 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:

Pam Puckett with The Puckett Team contacted Dammon Engineering August 3, 2012, about 2 ½ hrs before the house was to close, requesting a structural inspection of the referenced 11 year old home due to a substantial crack in the garage. Another minor crack in the ceramic tile was also reported in kitchen near the refrigerator.

Findings:

There is a wide crack that runs from the front of the garage to the rear of the garage on the right hand side of the garage; the crack has separated the slab approximately large enough to fit the thickness of a quarter inside the crack. Other spider, minor stress cracks were found in the garage slab but without separation. The ceramic tile under the refrigerator has a crack that extends on both sides of the refrigerator; the crack extends through 9 tiles. A visual inspection outside of the residence did not reveal any cracks in the mortar between the bricks, nor were there signs of a repair. The exterior foundation, above grade, at the ends of the crack inside the garage displays surface cracks in the concrete beam from the top of the beam to ground level; the grade beam could not be inspected below the surface of the ground. These cracks do not extend into the mortar directly above or around the crack.

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.

A differential measurement of the slab was taken using a Topcon Marksman RL-60B rotating laser. The measurement revealed a 0.3" difference between the hallway entrance from the garage to the rear of the house and a 0.6" difference from the left bedroom at the rear of the house to the dining room at the right front of the house.

Analysis:

The foundation of this 11 year old residential structure has some settlement causing tension cracks in the slab and ceramic tiles. These cracks likely occurred during the first 5 years of the slab's life. This structure has withstood a severe hurricane in its 11 year life span that also added stresses to 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 stress cracks were found around these areas and it did not appear that they were patched/fixed to cover-up settlement.

Another typical sign of large settlement is found in the roof structure. During the inspection no signs were found in the roofing structure that would typically be found if a structure were under large stresses from foundation settlement.

The garage appears to have settled causing a tension crack in the slab and requires patching.

The changes in the residential slab elevation are within what is normally acceptable. The equipment used for these measurements has a 0.25 inch margin of error and some the measurements were taken on top of carpet and padding.

Conclusion:

Houses and foundations all 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 slab. It is my opinion that the structural integrity of this slab is currently sound.

Any tree with a root system that approaches the slab must be removed to prevent any future damage. A concrete contractor should be hired to repair the crack in the slab in the garage; the crack in the slab should be sealed with a non-shrinking grout, to prevent insects from entering the garage.

Sincerely,



Emmett G. (Pete) Dammon, 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.