

Allied Building Inspections, L.L.C.

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Structural Report

June 12, 20XX



345 Any Street



A structural inspection was made of 345 Any Street on June 12, 20XX. The weather was mild and overcast. To avoid the possibility of damage to the present owner's property, the extent of this inspection was necessarily limited to the visible portions of the structure and accessible components. The purpose of the inspection was to evaluate the settlement and general structural integrity of the sunroom at the rear of the structure (Figure 1).



Figure 1

The room appears to have been built on top of a structure that was originally a deck. The floor consist of 2" x 8" joist on 16" centers running parallel to the rear of the house. The room is approximately 14 1/2 feet wide and extends 12 feet from the rear of the house. The extension is supported with three concrete pillars 7 1/2 inches square 6 1/2 feet apart. Two temporary columns have been placed at the mid point on one side as shown in Figure 1. The ends of the joist appear to be supported by nails only in a double 2" x 8" beam on each end. It could not be determined fully how the structure is secured the the main house structure. The house structure walls are solid brick. Inspection of the interior of the sunroom reveal a gap between the sunroom wall and the rear of the house approximately 3/8 inch as seen in Figure 2.

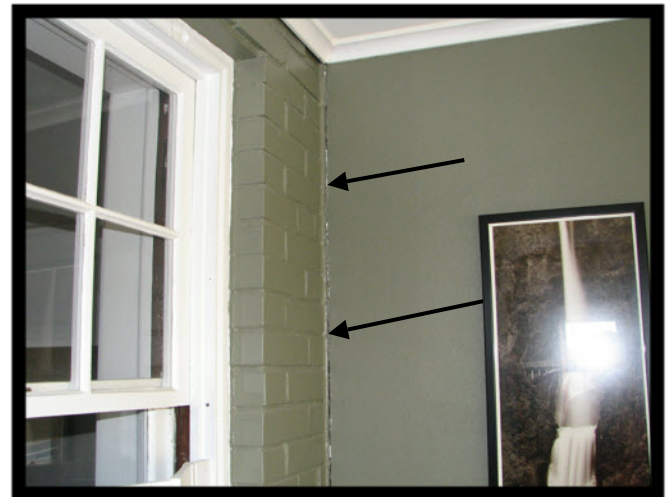


Figure 2

The owner stated that they had recently noticed the gap in the wall changing as well as water had started leaking between the room ceiling and the main house. They also stated that they had just recently repaired the french drain from the rear east corner downspout. The water from this downspout had been leaking into the basement area. The french drain runs partially under the concrete under the room.



Figure 3

Inspection of the roof area revealed there was no flashing between the wall and the roof over the sun room as shown in Figure 3.

The structure as it stands is not structurally adequate. It is recommended that the plywood be removed from the under side of the floor joists. The wooden structural components be inspected to insure that no water intrusion has deteriorated any of the structural components. It is then recommended that the floor section be properly anchored with bolts passing through the brick wall and into the wood floor structure of the house. It is also recommended that 2" x 8" floor joists be added between each of the current 2" x 8" joist. The current span is too much to be carried by 2" x 8" on 16" centers. Each end of the new joists as well as the old joists should be supported with proper joist hangers. A second support column should be added at the mid point of each of the double 2" x 8" beams on each end of the floor structure. These should be supported by concrete piers extending at least 30" into the ground. Additionally proper flashing should be installed in the area where the roof line meets the rear wall.

It is this writers opinion that the recent settlement activity was most likely caused by the malfunction of the french drain directing water under the support area of the beams. The current concrete beams show no signs of significant movement and are indeed vertical when measured with a level. It is recommended that after the structure has been reinforced, the gap be sealed and monitored for any future movement. If further movement is detected then some type of pier system may have to be installed at that time.

This inspection report cannot determine future possibility of shifting of footings or walls. Neither does this inspection attempt to cover any possible sub-soil or ground fault conditions that may or may not exist as to this property. Due to environmental and/or climatic and/or weather changes, the condition of the structure and components thereof can change at any time as a result of such changes.

Respectfully submitted,

A handwritten signature in cursive script that reads "Allen R. Sebaugh". The signature is written in black ink and is positioned above the typed name.

Allen R. Sebaugh P.E.