



DANIELS CONSULTING ENGINEERS, LLC

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January 3, 2024

RE: **INVOICE**

Location: 828 Mystery Lane
West Chester, PA 19382

Date Inspected: January 2, 2024

Present:

Inspected By: Sinan S. Jawad, PE
PA Registration No. 019706-E

Dear _____

In accordance with your request, I conducted a limited, visual only, structural inspection of the referenced property. The purpose of the inspection was to evaluate the following:

1. Basement rear wall cracked and bowing
2. Wood rot in framing on top of the basement rear wall

OBSERVATIONS AND OPINIONS

The property is a one story single family dwelling with a basement and a one car garage attached on the left side. The house was reportedly built in 1965. The basement walls were constructed with concrete block. The left section of the basement was separated from the right section by a block wall. The basement rear wall in the left section was covered by metal lath and stucco. The first floor was framed with 2x10 joists spanning front to rear and supported by the basement walls and a steel center beam. Grade was near the top of the basement wall in the front and the left section in the rear.

1. BASEMENT REAR WALL CRACKED AND BOWING

The rear wall in the left section of the basement was cracked and bowing. The damage was caused by soil/hydrostatic pressure. The wall is structurally damaged and should be repaired.

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The recommended repair is to rod and grout the wall using #5 vertical rebar and 5/8 inch diameter threaded rods that extend up through the sill plate. For estimating purposes assume fourteen (14) rebar and threaded rods are required. The wall should be braced until repairs are completed.

2. WOOD ROT IN FRAMING ON TOP OF THE BASEMENT REAR WALL

There was wood rot in the sill plate and the rim joist on top of the basement rear wall. The recommended repair is to replace the damaged sections of the sill plate with a new pressure treated plate and to sister the damaged sections of the rim joist with a new 2x10. I also recommend regrading to lower the grade 6 inch minimum below the top of the rear wall and to expose and repair any damaged section of the first floor wall sheathing.

CONCLUSION

It is my professional opinion that the basement rear wall is structurally damaged and should be repaired. I also recommend repairing the wood rot in the first floor framing. The recommended repairs are as described above.

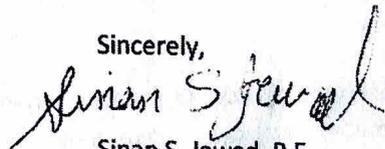
Disclaimer

The opinions, recommendations, and conclusions presented in this report or discussed during the inspection are based on our observations and engineering experience. They are based on visual symptoms or lack of symptoms of structural problems common to this type of construction. No destructive inspection (opening of walls, floors, ceilings, etc.) or testing was performed, thus this report is based on the visual inspection of accessible areas only. Our investigation and report is not intended to warrant against present or future structural problems.

Any repairs discussed in this report or during the inspection are for the purpose of identifying a method of repair and/or generating an approximate cost. Actual repairs should follow detailed written recommendations/design by a licensed engineer familiar with this type of work. Inspection of the repairs should be by the engineer that prepared the detailed design.

Please contact me if you have any questions.

Sincerely,



Sinan S. Jawad, P.E.
Structural Engineer

