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July 10, 2024

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Re: Structural Investigation
319 Park Avenue
Sanford, NC 27330
Project #24177

Dear ???:

I made a site inspection of the house located at the above referenced address. For purposes of this report, all directions (left, right, rear, etc.) are taken from the viewpoint of an observer standing in front of the house and facing it.

FIELD OBSERVATIONS:

Interior:

- There was a minor drywall crack that is not a structural issue (photo 1).
- The roof sheathing had some cracks (photo 2).
- There was no access to the rear attic space (photos 3 & 4).

Exterior:

- The front steps had wood rot (photos 5 & 6).
- There was a crack in the brick façade at the left side (photos 7 & 8).
- The mortar at the rear wall was loose (photos 9, 10 & 11).
- There were no joist hangers at the rear deck and steps (photos 12 & 13).

- The handrails at the rear steps were loose (photo 14).
- There was a repair to the floor of the sunroom at the top of the stairs that was not standard (photos 15 to 17).
- There was a crack in the brick façade at the right side (photos 18 & 19).

Crawl Space:

- There were several temporary supports in the crawl space supporting the floor joists (photos 20 to 25).
- There was wood rot in at least one of the floor joists at the front (photo 26).
- The bearing of the floor joists at the front of the crawl space was inadequate (photos 28 to 29).
- There were splices in the girder at the center (photos 30 & 31).
- There was a piece of the girder missing in the girder (photo 32).

REPAIR RECOMMENDATIONS:

I recommend the following repairs:

Interior:

- I recommend repairing the roof sheathing when the roof is re-shingled.

Exterior:

- Repair the wood rot at the front steps.
- Repair the brick cracks and loose mortar at the perimeter by repointing the brick joints.
- Provide joist hangers at the rear steps and landing.
- Remove and replace the rear stair handrail.
- Remove the temporary support and provide a permanent support at the sun room.

Crawl Space:

- Remove the temporary supports within the crawl space.

- Provide a (3) 2x10 girder to support the floor joists at the front and rear.
- These girders shall be supported by brick piers similar to photo 33 or metal posts.
- The piers or metal posts shall be supported by concrete footings.
- Repair the wood rot at the front floor joist.
- Provide hangers similar to photo 34 at the front and rear floor joists at the front and rear crawl space walls.
- Provide new 2x10s each side of the girders where the splices are located.
- Provide new 2x10's where the piece of girder is missing.

Respectfully Submitted:

Jeffrey J. Moss, P.E.
Senior Structural Engineer
JJM: lmm

PHOTO 1

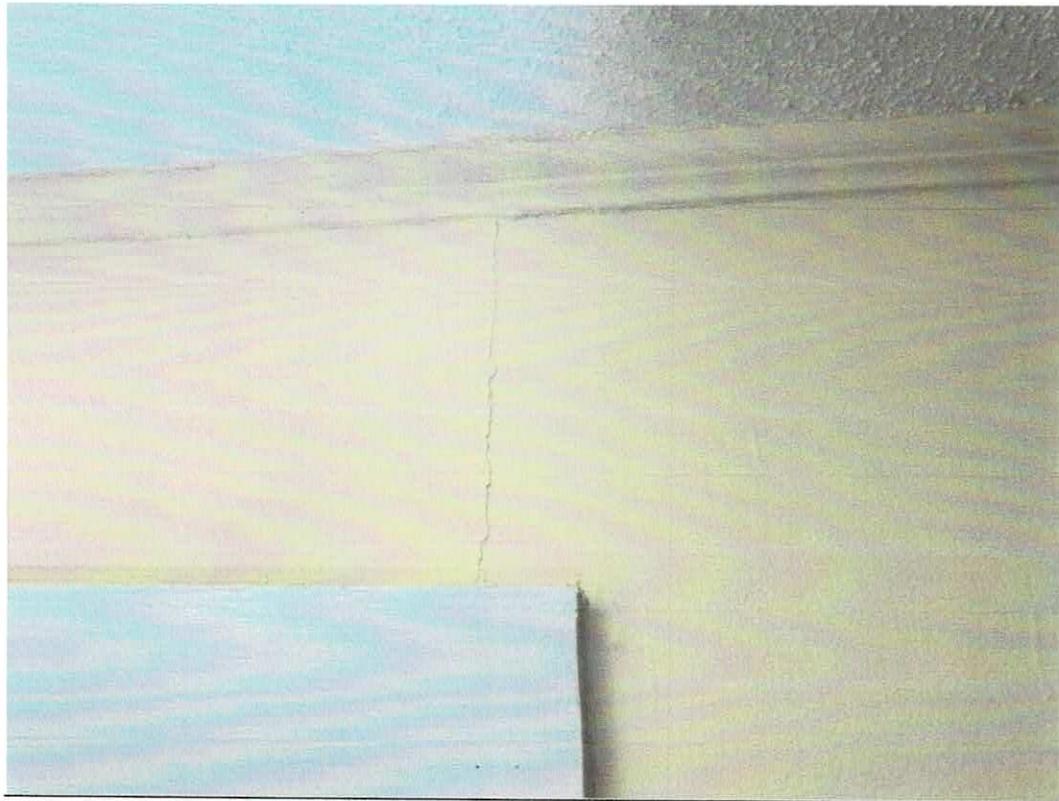


PHOTO 2



PHOTO 3



PHOTO 4

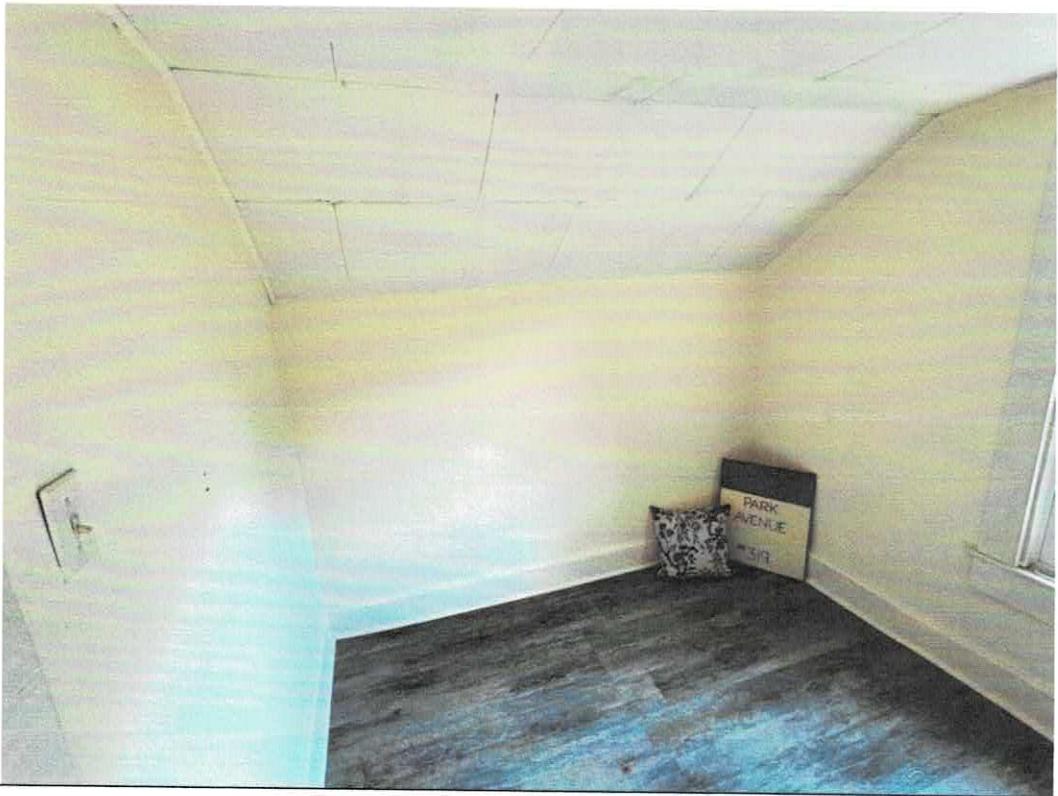


PHOTO 5

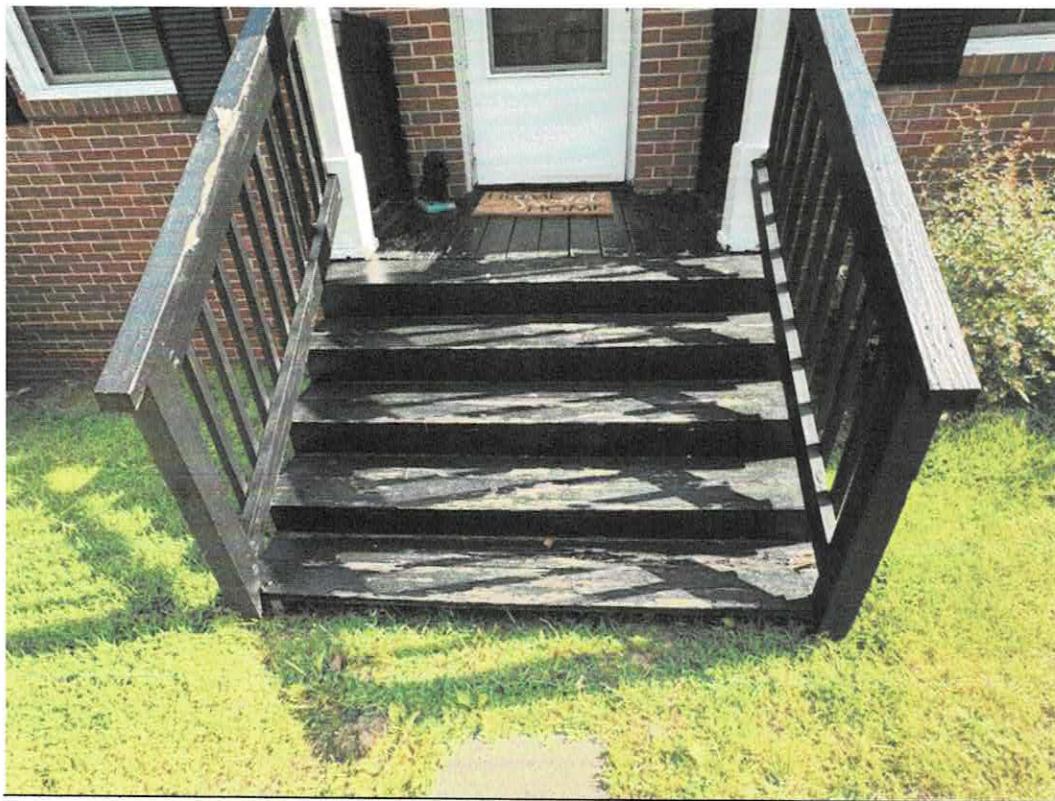


PHOTO 6



PHOTO 7



PHOTO 8



PHOTO 9



PHOTO 10

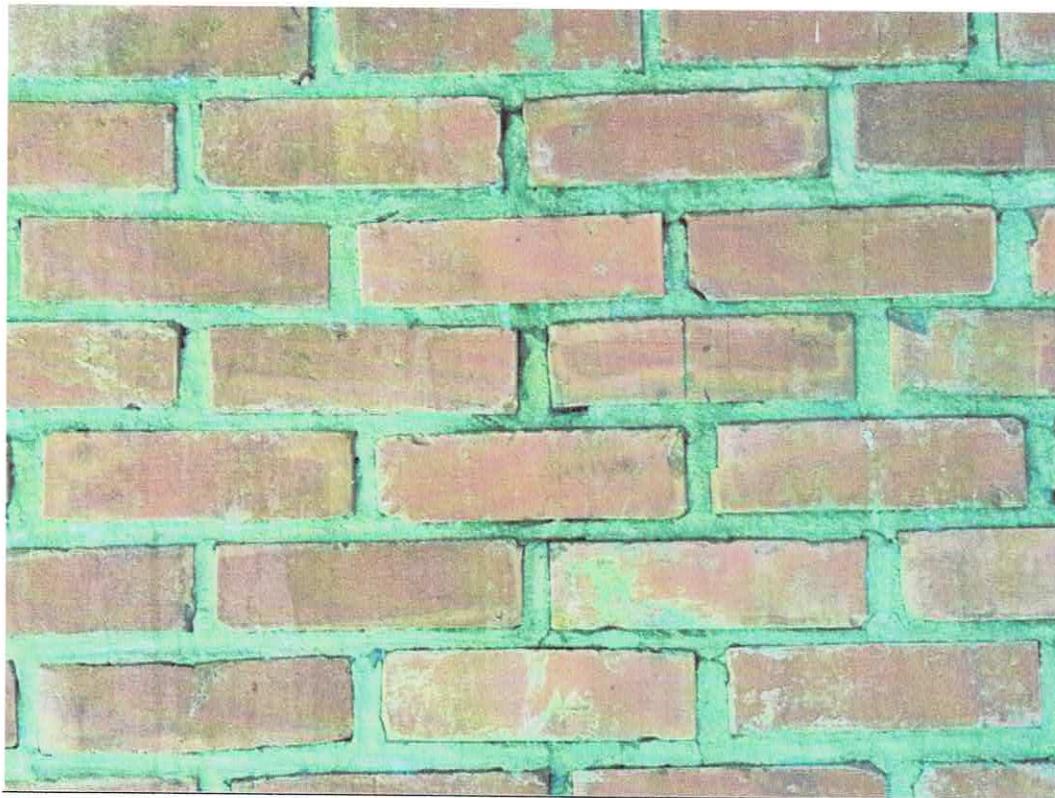


PHOTO 11

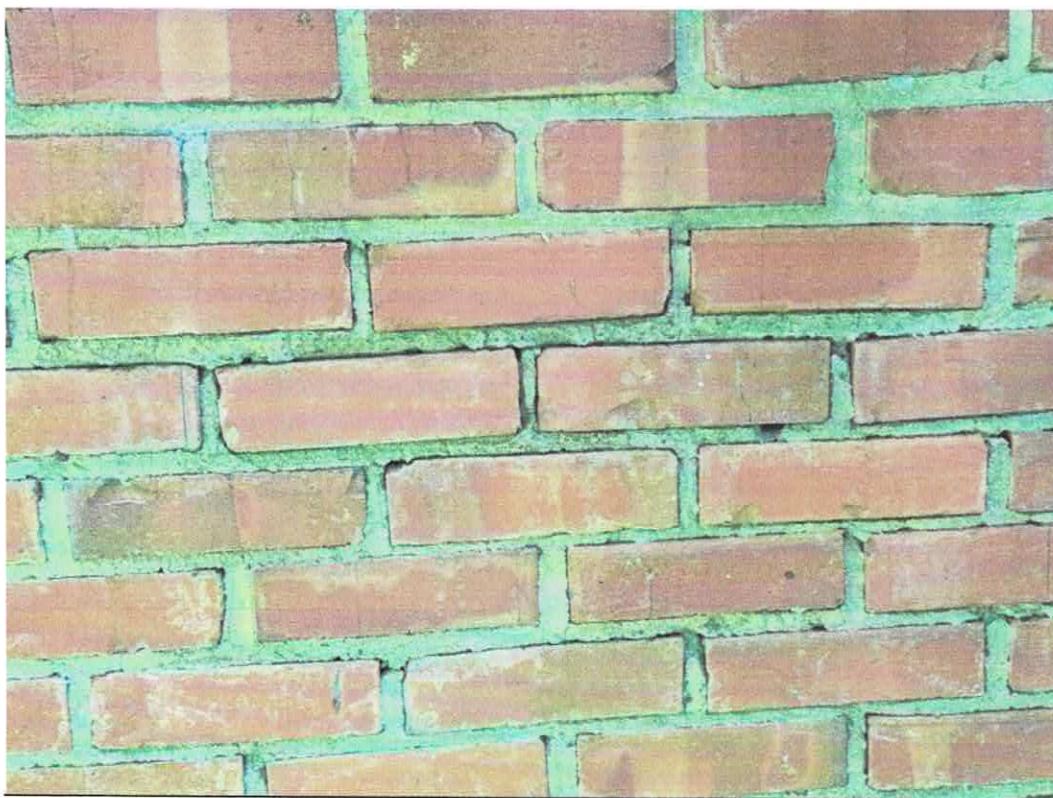


PHOTO 12

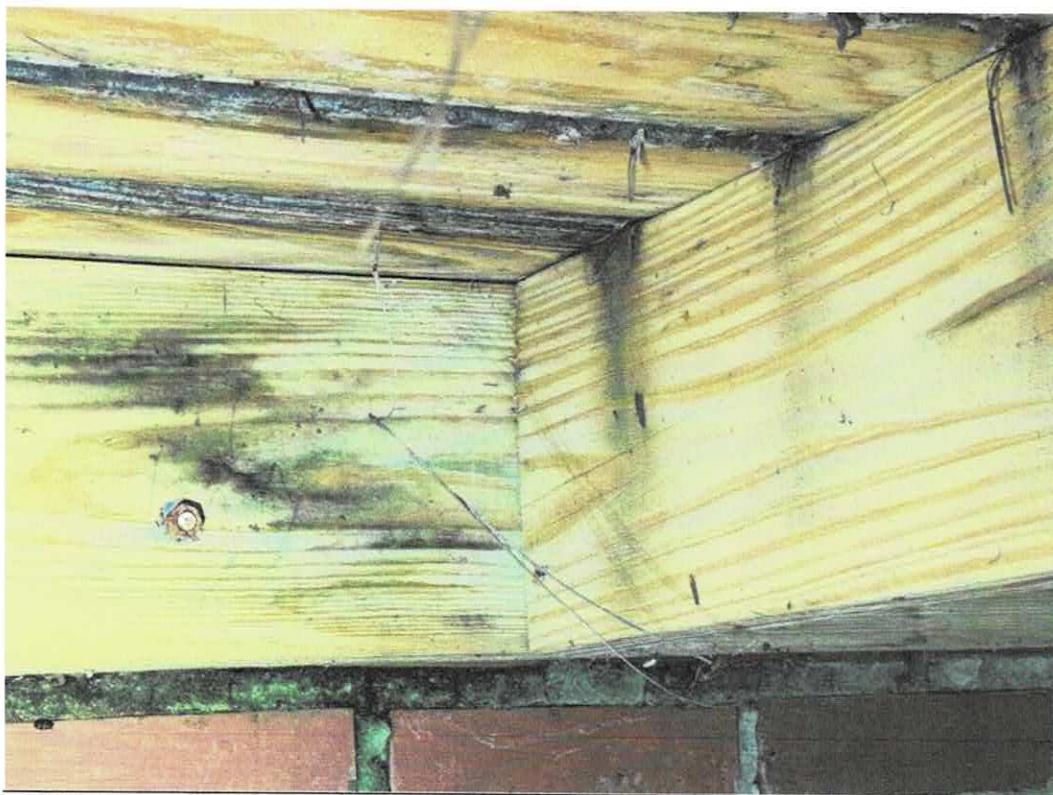


PHOTO 13



PHOTO 14

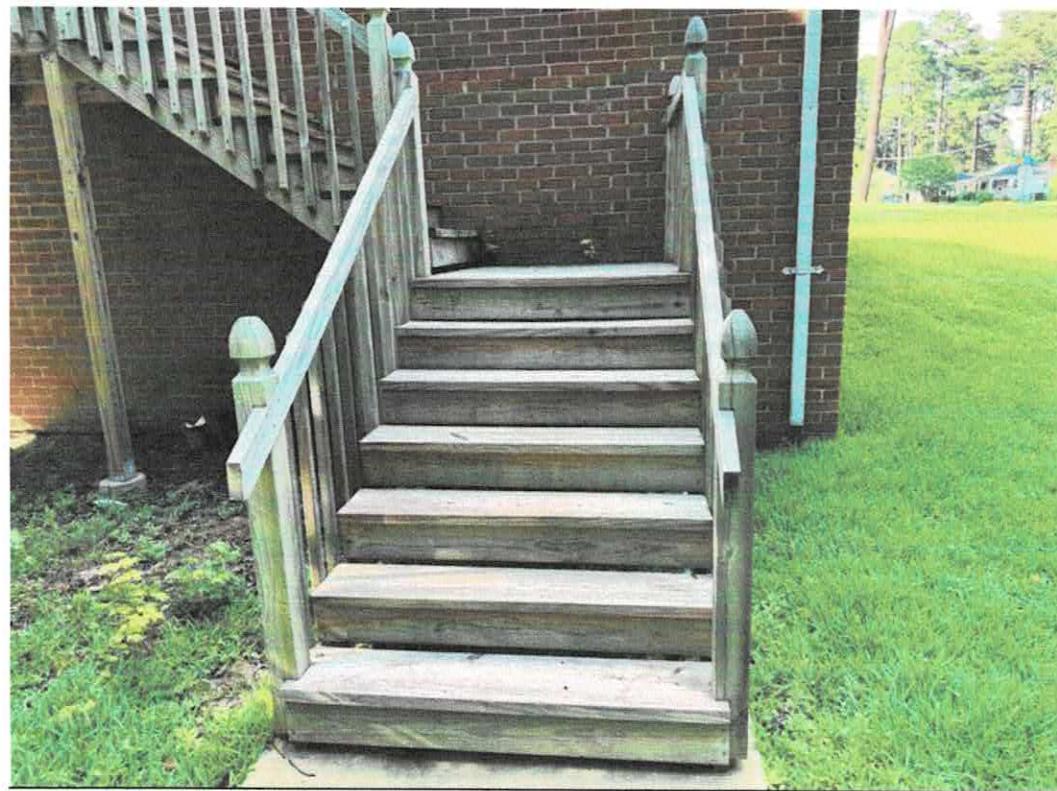


PHOTO 15

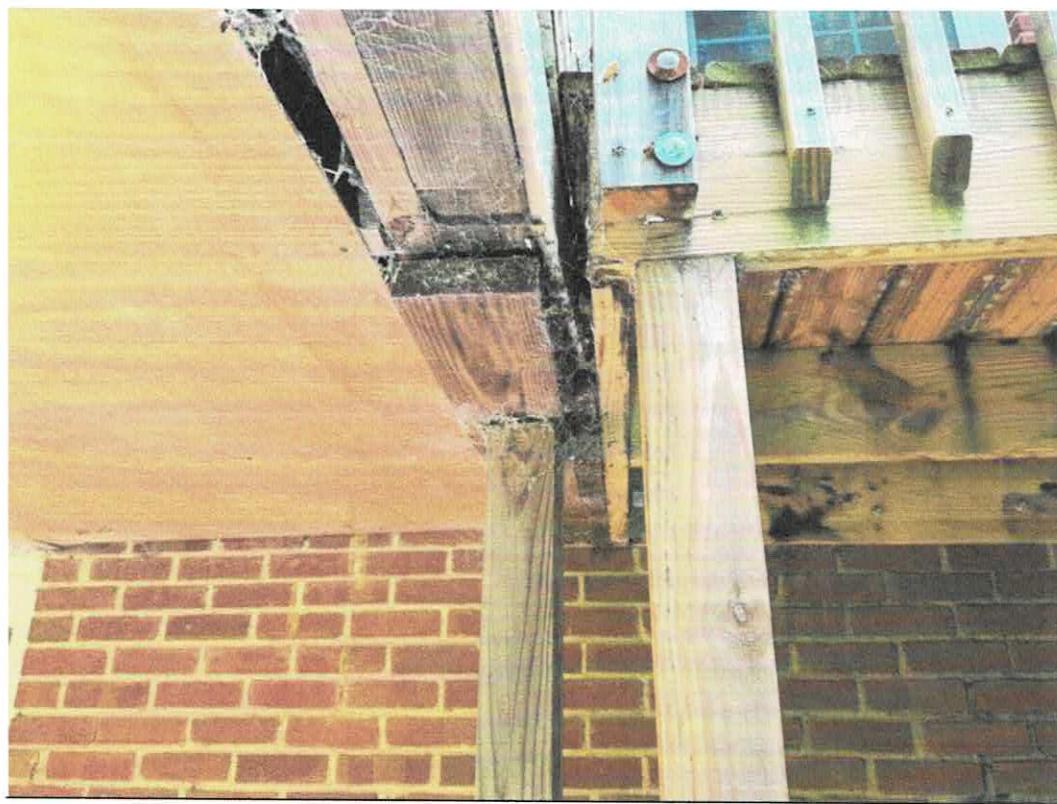


PHOTO 16



PHOTO 17



PHOTO 18

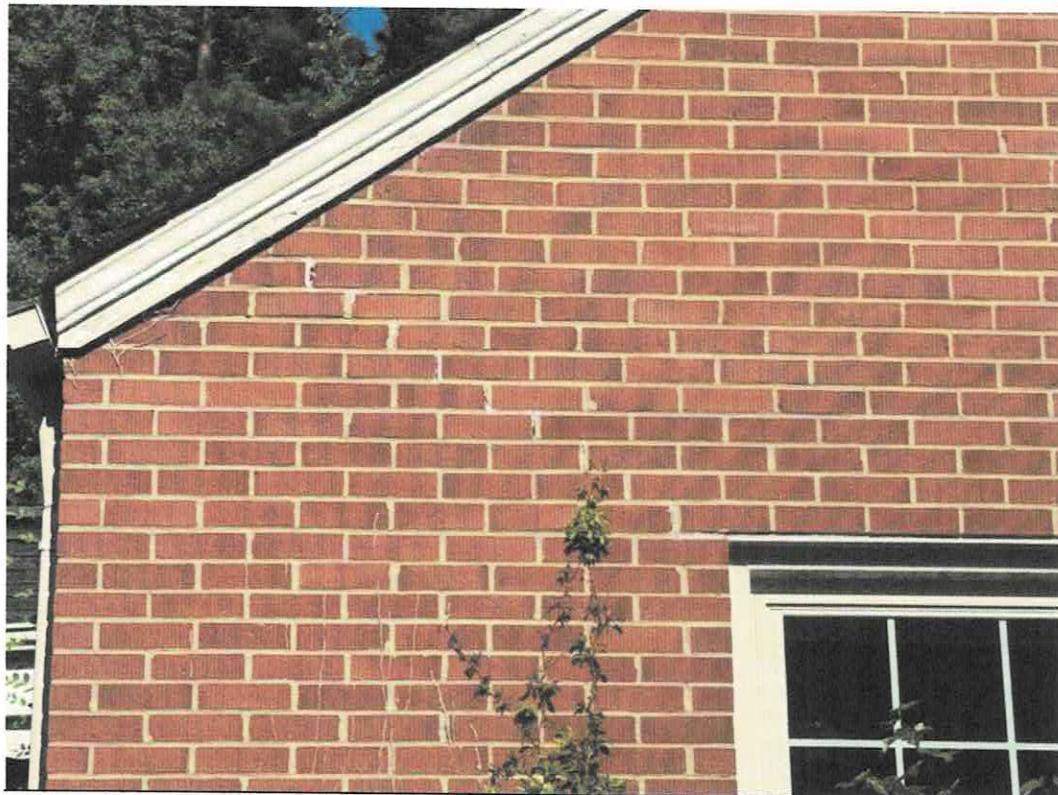


PHOTO 19



PHOTO 20



PHOTO 21

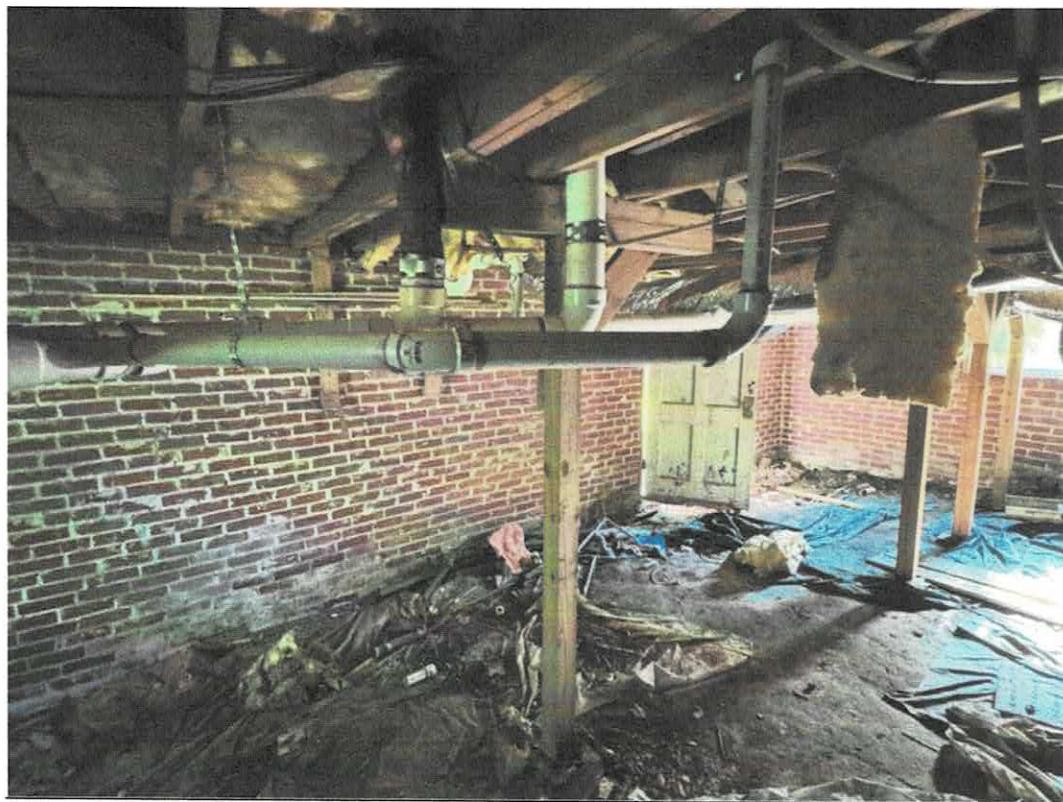


PHOTO 22



PHOTO 23

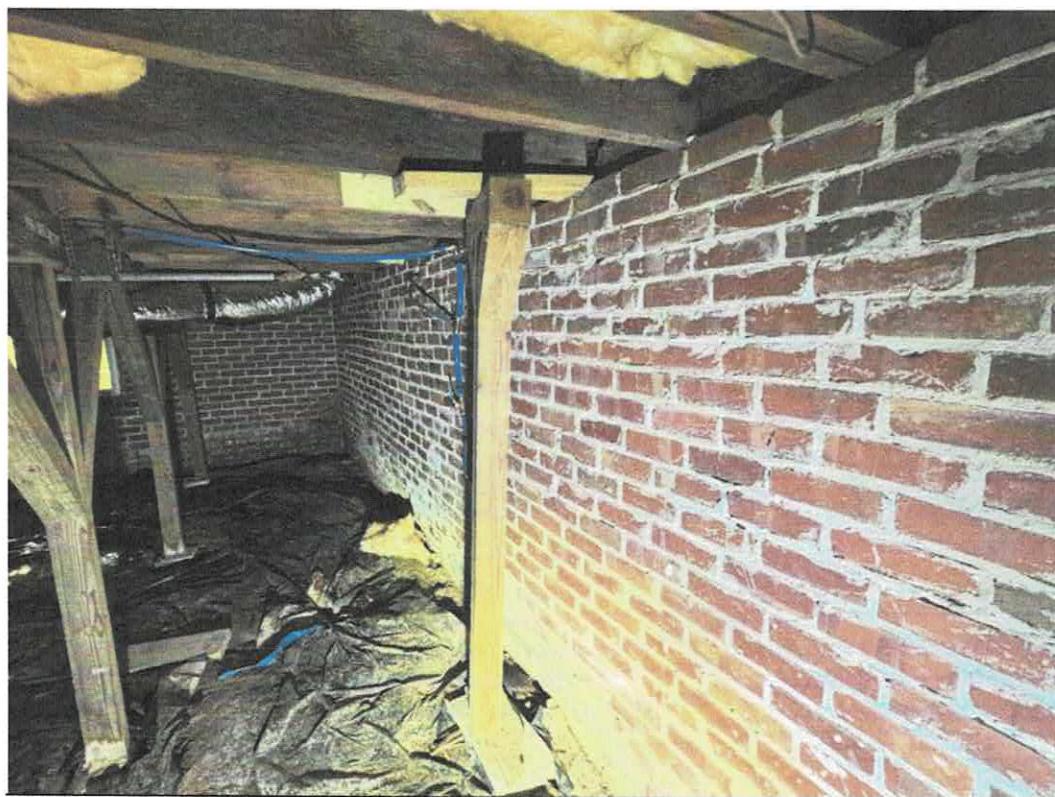


PHOTO 24

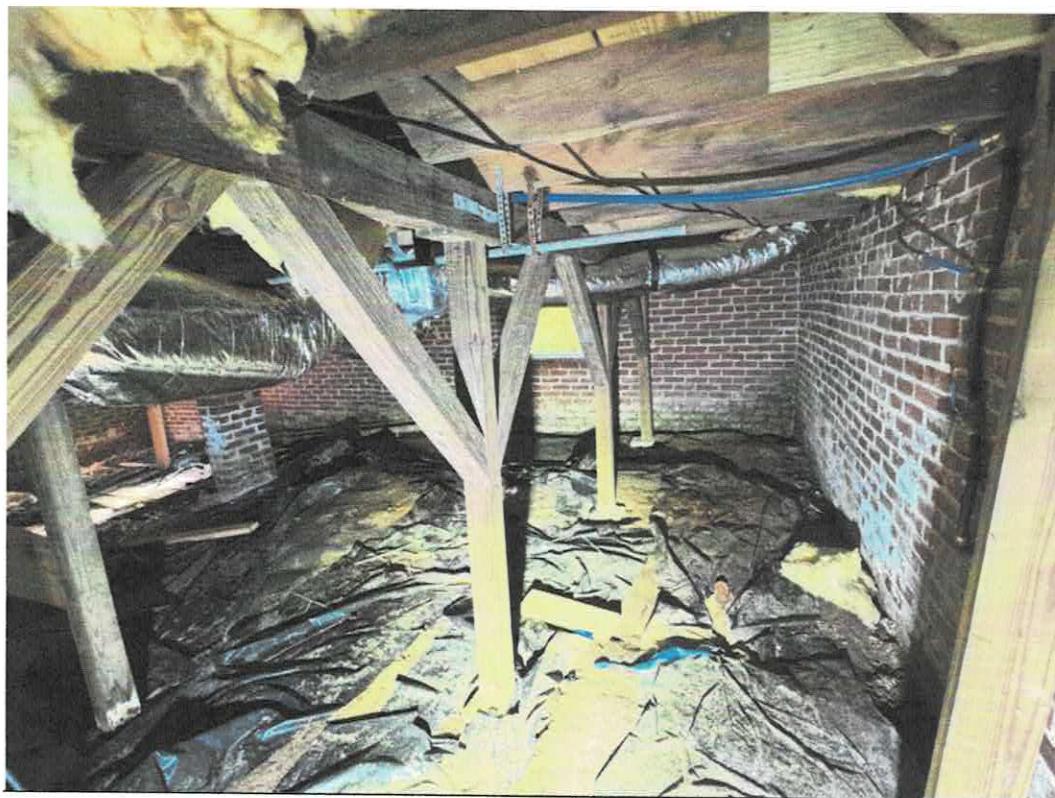


PHOTO 25

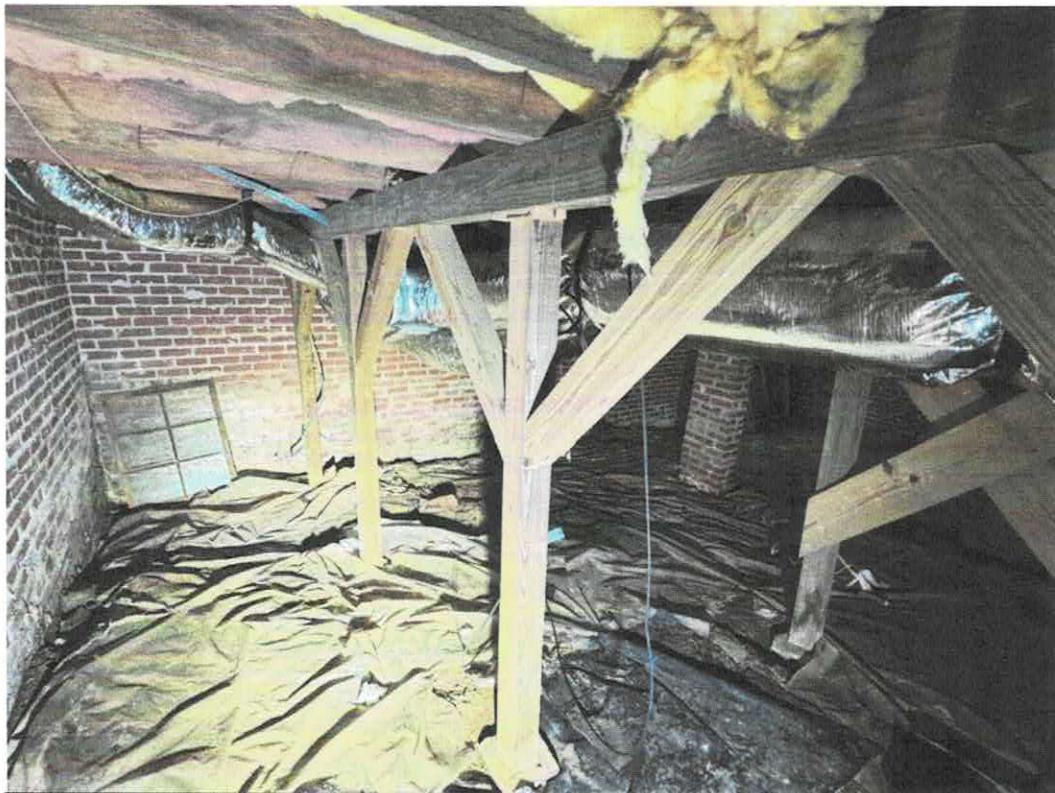


PHOTO 26

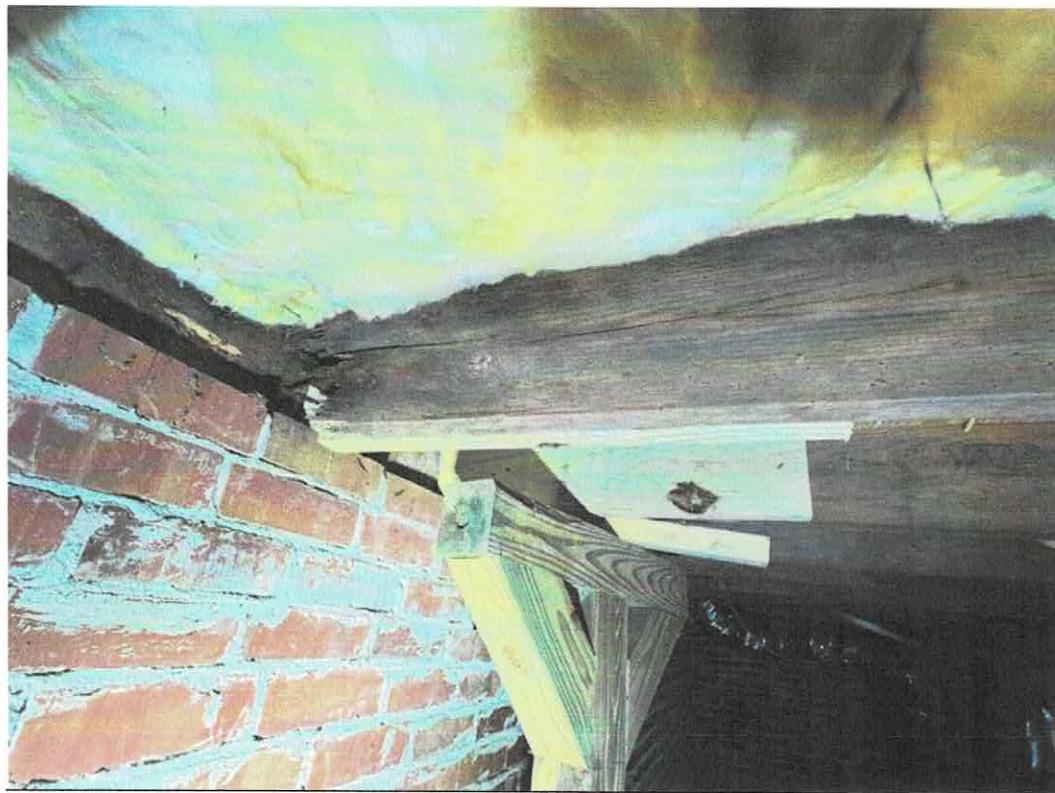


PHOTO 27



PHOTO 28

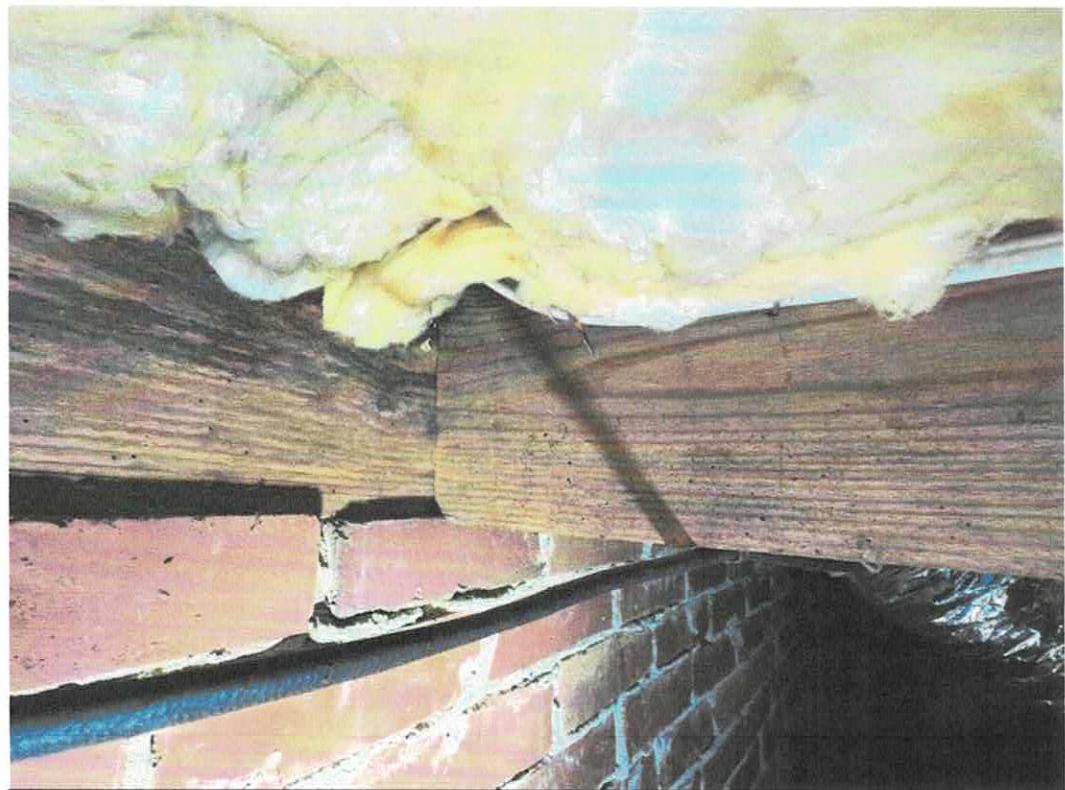


PHOTO 29



PHOTO 30



PHOTO 31



PHOTO 32

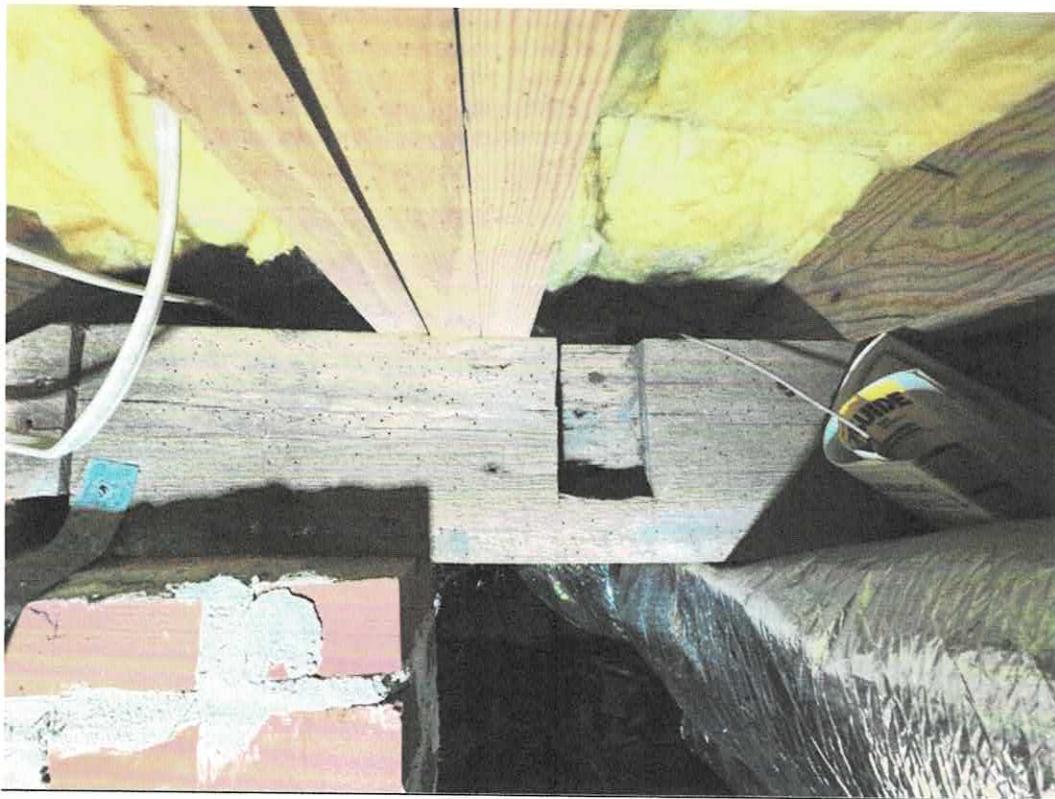


PHOTO 33

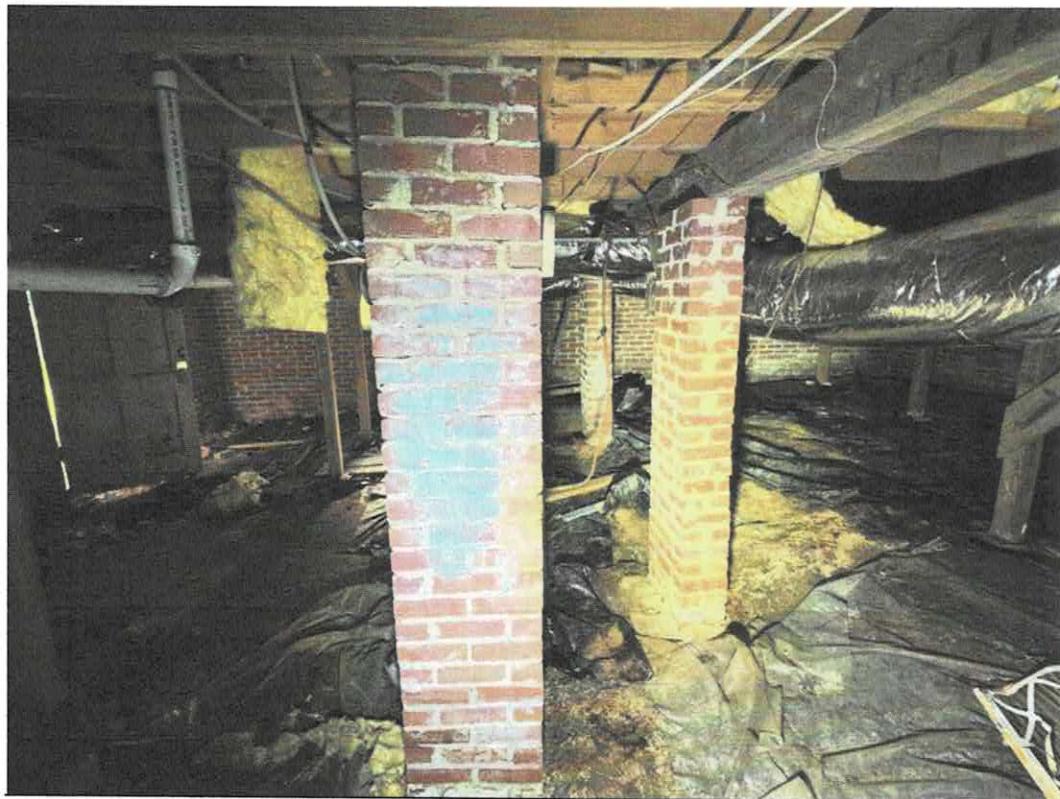


PHOTO 34

