

1011 Bay St - Suite 306 Beaufort SC 29902

info @ 29E6.co 843 441 9828 29E6.co

March 31, 2022

Project: 22-002.11 3 Wharf Street

3 Wharf Street, Bluffton, SC

RE: Building Remodel Recommendations

Construction Site Visit (CSV) #01

#### Purpose:

A Structural Observation was conducted on March 09 and 22, 2022. This observation was conducted by D. Scott Robinett, PE.

#### Attendees:

D. Scott Robinett, PE

### General Stage of Construction:

This structure has been empty for quite some time. This is evident due to the rotten exterior members, holes in the exterior walls, etc. This structure is in a very distressed state and in need of major repairs, reconstruction or demolition.

### Structural Observations, Notable Actions, and Discussion

#### Structural Observations:

- Front porch is falling away from the structure
- Front porch does not have a proper supporting foundation with piers and footings tying it together for a continuous load path to the ground
- Exterior siding is falling off the walls
- Masonry piers have mortar missing in excess of +6 inches into the pier to the point a ball point pen can be almost completely hidden in the mortar joint
- Back porch has rotten shoe plate, top plate, floor sheathing, and some studs
- Corrugated metal roof sheets have holes, are loose, bent, damaged and need to be replaced
- Roof rafters are not connected at the peak
- Interior ceiling has water damage, rotten wood planks or is missing altogether
- No destructive testing was performed during the site visits

### **Discussion:**

Given the above-mentioned conditions, we offer the following. These are two alternative recommendations – starting with the most extreme option.

1. Recommend demolish the structure in its entirety, use some of the existing members in the new construction or salvage them to display throughout the structure



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- 2. Repair and Replace members as needed
  - a. Replace all rotten wood, soft wood, excessively deflected members, members showing insect damage, etc.
  - b. Replace all damaged, and/or compromised members with new:
    - Foundation: Footings, piers, supports it is noted here that no investigation to the midspan piers was performed due to the uncertainty of the structure's integrity
    - ii. Floor Joist and Sheathing: Porch and connections to structure, sagging floor joist and sheathing
    - iii. Walls: rotten studs, shoe plates, top plates interior and exterior
    - iv. Ceiling Joists and finishes: areas where plank ceiling is rotten, joist most likely are soft in these areas due to being in contact with water for extended time frames
    - v. Roof Rafters and Covering: Rafter are not connected at the peak; tin roof sheets are dislodged exposing the interior to the elements
    - vi. Exterior siding: many pieces of siding are missing, soft or rotten due to exposure and no protection from elements (paint)

This structure is in considerable disrepair, and it is our recommendation that it be demolished in its entirety and rebuilt with new material. The existing good materials could be either reused in the new construction or put on display.

All photos taken at the time of the site visit and provided by the contractor have been attached at the end of this report. Full size photos are available upon request.

Regards,

D. Scott Robine SCPE #25127

Structural PE

04/09/2022



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Front Elevation



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South West Corner



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West Elevation-1



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West Elevation-2



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West Elevation-3



1011 Bay St - Suite 306 Beaufort SC 29902



North West Corner Pier



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North West Corner Elevation



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North West Elevation



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North East Elevation



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**East Elevation** 



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South East Elevation



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South West Porch Supports Broken CMU Block due to incorrect orientation



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South West Corner Pier



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North-West Corner Pier



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North-West Corner Pier Notice Ball Point Pen in brick joint



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Back Room with rotten shoe plate and studs



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Back Room and North-West Corner connection – No apparent connection of two structures



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North West Corner finish rotten



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Back Entrance Stair construction is not to code



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Rotating Floor Joist due to missing band board connection and rotten siding



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Incorrect loading of 4" CMU block



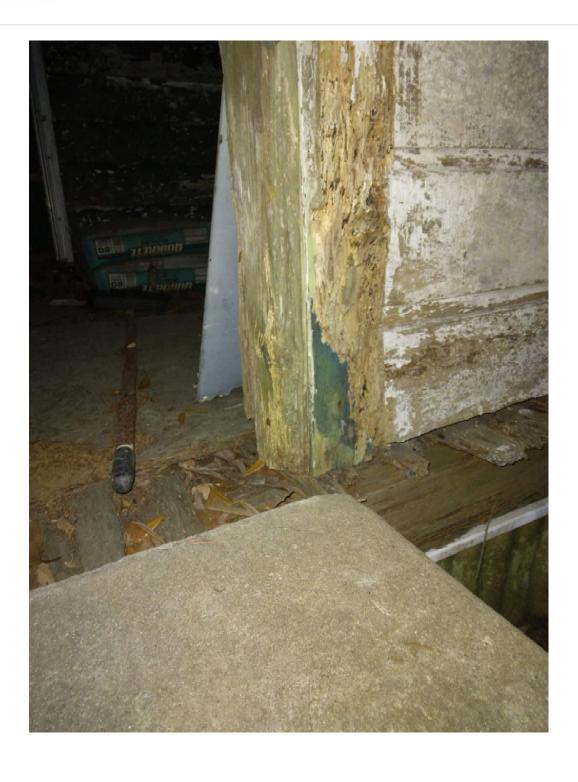
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Rotten Jack and King post at Porch door



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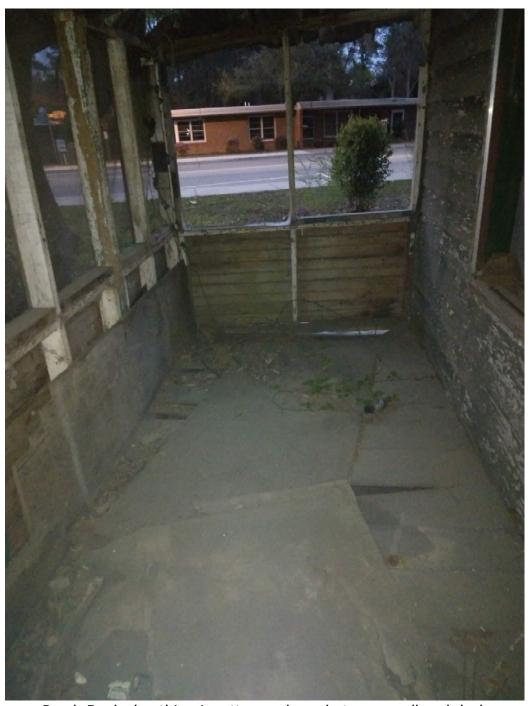
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Porch Rotten Top Plate and Roof Rafters



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Porch Deck sheathing is rotten and gap between wall and deck



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Roof Rafters not connected to ridge board



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Rotten Ceiling finish



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Rotten Ceiling Finish