

# Canterbury House Apartments Building #2 Foundation Assessment

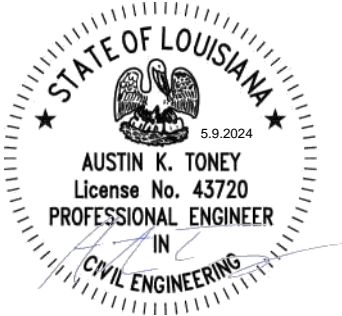
310 Spartan Drive  
Slidell, Louisiana

May 10, 2024



Prepared for: Kittle Property Group  
310 E. 96<sup>th</sup> Street, Suit 400  
Indianapolis, Indiana 46240

Report Prepared by:



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Austin K. Toney  
Licensed Professional Engineer No. 43720



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## 1.0 Report Body

Southeast Engineers, LLC (herein: SE) was contracted by Kittle Property Group to perform a structural evaluation of the elevated pile and beam crawlspace foundation for Building #2 located at Canterbury, 301 Spartan Drive, Slidell, Louisiana. The scope of the evaluation included a visual assessment of the building crawlspace foundation and a report summarizing the findings of the assessment and recommendations for remediation. Additionally, SE was to produce an estimated quantity/takeoff of the remediation required in order to assist the owner in predicting anticipated costs for remediation. SE was also requested to determine which areas of the building are acceptable for occupancy prior to repairs.

Table 1.0 below outlines the structural remediation quantities expected based on field observations performed by SE.

Description of Remediation	Estimated Quantity	Unit	Estimated Cost
Subfloor Sheathing (3/4" Plywood) Replacement	850	sf	Contractor Determined
Floor Truss Replacement	36 {432}	qty {lf}	Contractor Determined
Flush Beam Replacement	88	lf	Contractor Determined
Truss Mending Plate Repair	10	qty	Contractor Determined
Removal of Vegetation	440	sf	Contractor Determined

Table 1.0

### Statement of Occupancy

It is understood that the local building department has rendered this building unsuitable for occupancy. The entire building shall remain unsuitable for occupancy until observations of the subfloor north of the breezeway have been performed and an opinion has been rendered on the condition of structural components. All stories located south of the breezeway shall continue to remain unsuitable for occupancy until all repairs in this area have been made. Refer to Appendix B for delineation of critical repairs.

### Subfloor Sheathing Replacement

Observations by SE indicated limited subfloor damage at the breezeway, and widespread subfloor damage at the southwest corner of the building. An estimated 880 square feet of subfloor and was fully compromised and in need of replacement. Compromised subfloor should be fully removed and replaced with minimum 3/4" thick exterior rated structural plywood, fastened to joists with 10D nails at a minimum spacing of 6" on-center.

### Floor Truss Replacement

Observations by SE indicated widespread damage to truss top chords at the southwest corner of the building. An estimated 432 linear feet of floor trusses were fully compromised and in need of replacement. Where compromised, floor trusses shall be fully removed between girder supports and replaced with new pre-engineered wood floor trusses designed for a top chord dead load of 15 psf and a top chord live load of 40 psf. Follow Figure 1.0 where trusses are continuous, and damage is present at



only one side of the support. The General Contractor shall be responsible for all required temporary shoring to facilitate repairs.

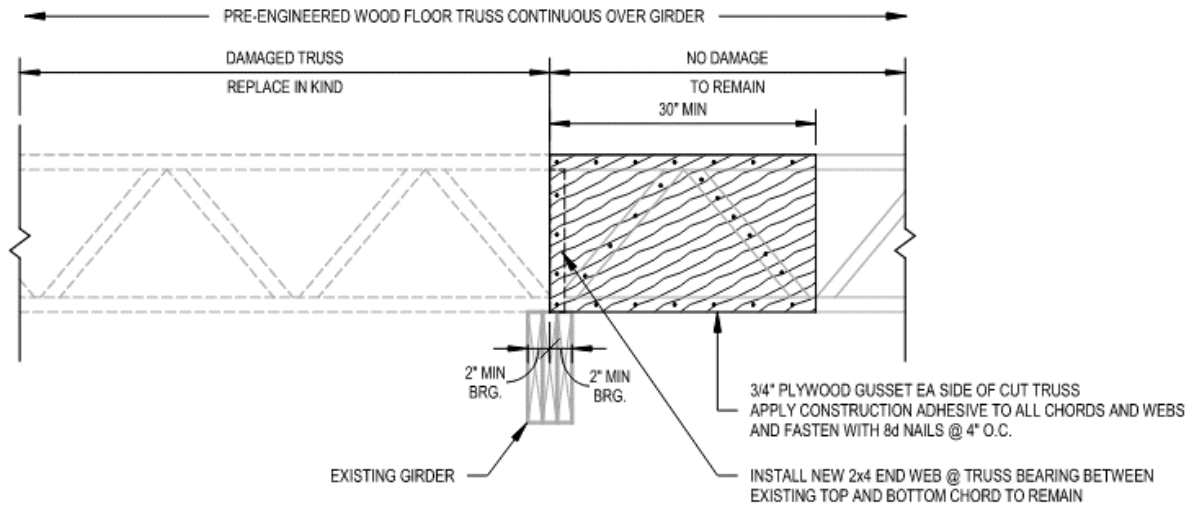


Figure 1.0

### Flush Beam Replacement

Moisture damage and decay was observed at the 4-ply 1.75"x16" flush LVL floor beam indicated on SK-1. Based on the extent and type of damage SE recommends replacing the beam along its entire length with a 2-ply 3.5"x16" Pressure treated Parallam (PSL) beam. The General Contractor shall be responsible for all required temporary shoring to facilitate repairs.

### Truss Plate Repair

Separation was observed at various truss plates at webs and bottom chord splices as indicated on SK-1. Repair is recommended in accordance with Figure 2.0

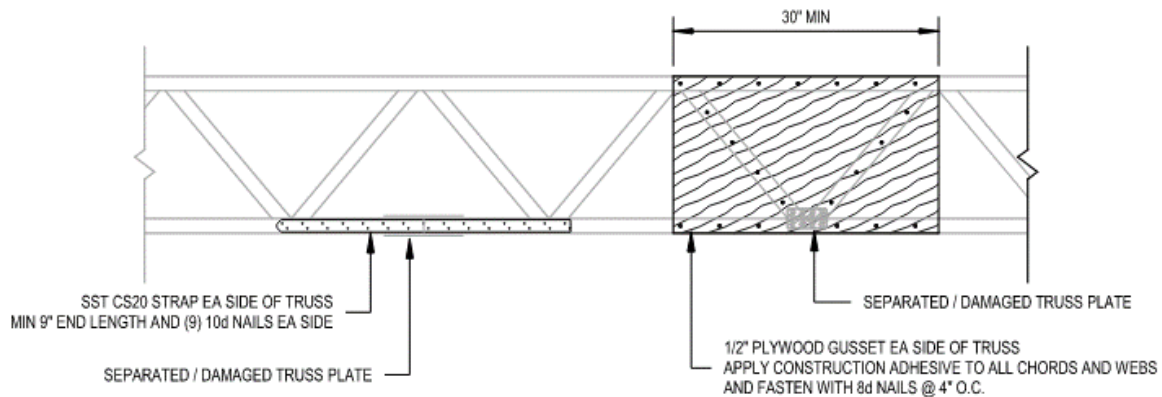


Figure 2.0



### **Removal of Vegetation**

During the assessment, SE observed dense vegetation blocking airflow at total of (6) crawlspace vents on the southeast and southwest corners of the building. SE recommends removing the vegetation referenced on SK-1 to restore cross-ventilation for this portion of the crawlspace.

### **Additional Findings and Recommendations**

An elevation survey of the existing buildings was not within the scope of services of Southeast Engineers, and no occurrence of signs of settlement of the building foundation were brought to the attention of Southeast Engineers. As such, an evaluation of the building foundation pile settlements was not within the scope of this engagement.

A significant portion of the damage observed was localized to the southwest corner of the building. The damage was worst near the center of the west elevation and conditions progressively improved toward the center of the building. The causation of damage is attributed to both moisture intrusion and wood destroying insects. It is understood that a professional has been retained to eliminate the wood destroying insects. SE recommends that the owner make every effort to verify the integrity of the building envelope, specifically at the interface between the concrete breezeway and building interior. Consultation with an architect or building envelope specialist is recommended.

Wood truss top chords and subfloor sheathing were obscured by spray-in insulation at approximately 75% of the building. As a result, SE was unable to assess the condition of these components globally. Based on the characterization of damage it is probable that significant damages are localized to the areas observed; however, as a precaution Southeast recommends removing approximately 2 square feet of insulation at the bottom of floor deck between pile grids and at mid-span of trusses at no less than 16' intervals. These areas shall be inspected for evidence of moisture intrusion and findings shall be reported to SE.

Other than vent areas obstructed by vegetation, the crawlspace ventilation was found to be adequate in accordance with governing codes.

Refer to Appendix B for existing conditions and observations.



# APPENDIX A

Site Layout

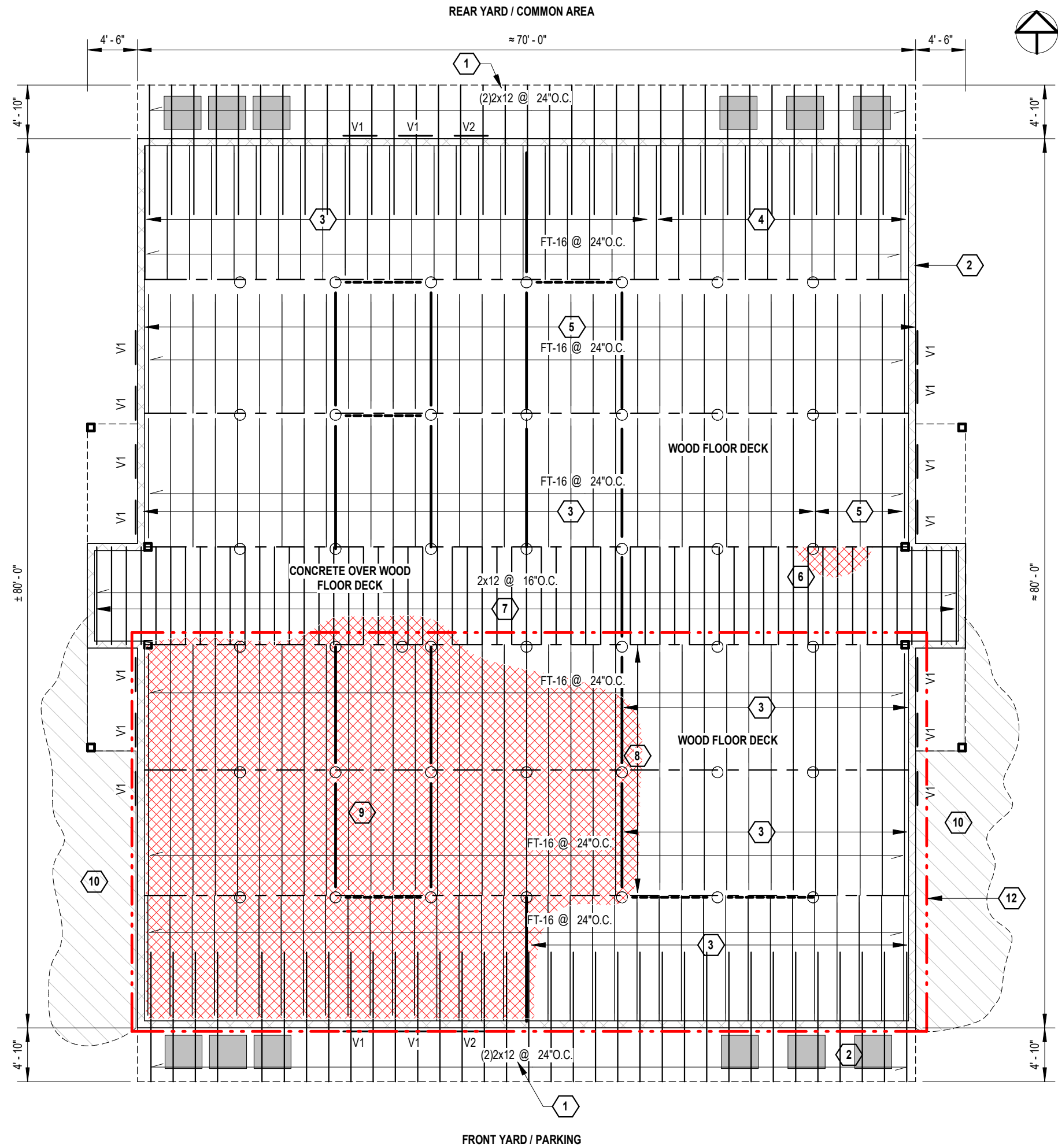


Site Layout



## **APPENDIX B**

Site Observations and Existing Conditions



- ### # OBSERVATION KEYNOTES
- 1 NO SIGNS OF DISTRESS OR DECAY AT CANTILEVER JOISTS
  - 2 NO EXTERIOR OR INTERIOR SIGNS OF DISTRESS AT 8" CMU CHAINWALL
  - 3 NO SIGNS OF DISTRESS OBSERVED AT FLOOR TRUSS BOTTOM CHORDS OR WEBS. TOPS CHORDS AND SUBFLOOR WERE CONCEALED BY INSULATION
  - 4 SEPERATION OBSERVED AT TRUSS MENDING PLATES
  - 5 MOISTURE AND EARLY SIGNS OF DECAY OBSERVED AT FLOOR TRUSS BEARING.
  - 6 DECAY OBSERVED AT SUBFLOOR AND BLOCKING. MOISTURE AND SIGNS OF EARLY DECAY OBSERVED AT JOIST ENDS
  - 7 NO SIGNS OF DISTRESS AT PRESSURE TREATED JOISTS. COMPROMISED SUBFLOOR AT AREAS INDICATED BY RED HATCHING
  - 8 MOISTURE AND ADVANCED DECAY OBSERVED AT LVL BEARING. REPLACE IN FULL.
  - 9 INSULATION WAS REMOVED TO EXPOSE SUBFLOOR AND FT16 TOP CHORD. MOISTURE AND EVIDENCE OF WOOD DESTROYING INSECTS WAS OBSERVED AND IS INDICATED BY RED HATCHING. ≈ 65% OF THE OSB SUBFLOOR AND WOOD FLOOR TRUSSES WERE OBSERVED TO BE COMPROMISED AND IN NEED OF REPLACEMENT.
  - 10 DENSE VEGETATION WAS OBSERVED AS INDICATED AND OBSTRUCTED (1) CRAWLSPACE VENTS
  - 11 LINE INDICATES PORTION OF THE BUILDING NOT SUITABLE FOR OCCUPANCY UNTIL ALL REPAIRS IN THIS AREA HAVE BEEN MADE
  - 12 DELINEATED PORTION OF THE BUILDING IS NOT SUITABLE FOR OCCUPANCY UNTIL ALL REPAIRS IN DELINEATED AREA HAVE BEEN COMPLETED

### EXISTING CONDITIONS LEGEND

V1	36"x48" CRAWLSPACE VENT WITH WOOD LATTIC COVER
V2	36"x48" CRAWLSPACE ACCESS PANEL WITH EXPANDED METAL DOOR
○	CLASS A OR B FOUNDATION TIMBER PILE - EQUALLY SPACED
□	8X8 FULL-SAWN RECTANGULAR TIMBER PILE
---	CL OF DROPPED (3)2x12 FLOOR GIRDER
- - -	DROPPED LVL GIRDER REINFORCEMENT BEAM
—	FLUSH MULTI-PLY LVL FLOOR BEAM
FT16	16" DEEP OPEN WEB WOOD FLOOR TRUSS

**BUILDING #2 SITE OBSERVATIONS & EXISTING CONDITIONS**  
**CANTERBURY HOUSE APARTMENTS**  
 301 SPARTAN DR.  
 SLIDELL, LA 70458

Project number SE-24-482  
 Date 5.10.2024  
 Drawn by BW  
 Checked by AKT

SK-1



## **APPENDIX C**

Photographs



**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 24



Photo 25



Photo 26



Photo 27



Photo 28



Photo 29



**Photo 30**



**Photo 31**

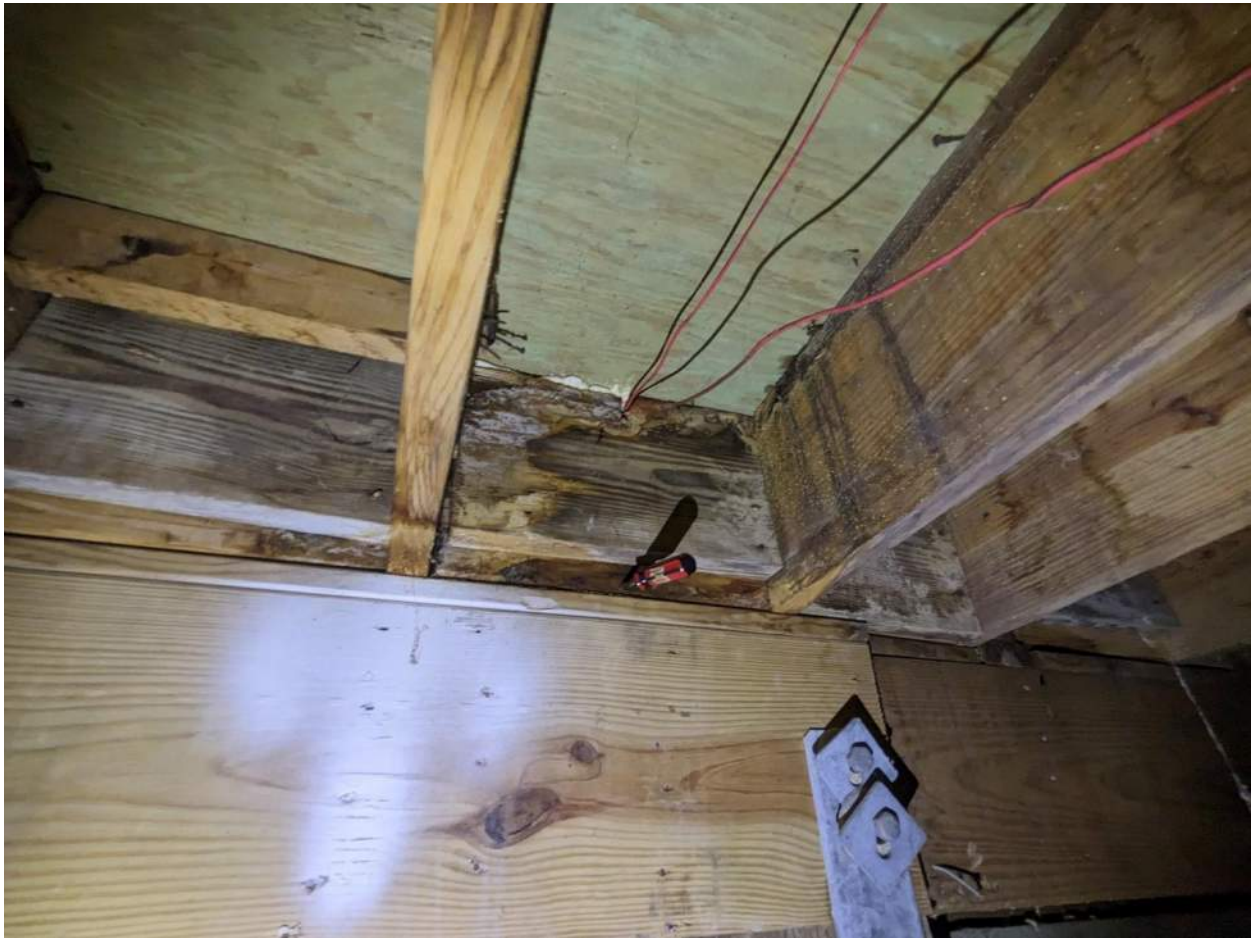


Photo 32



**Photo 33**

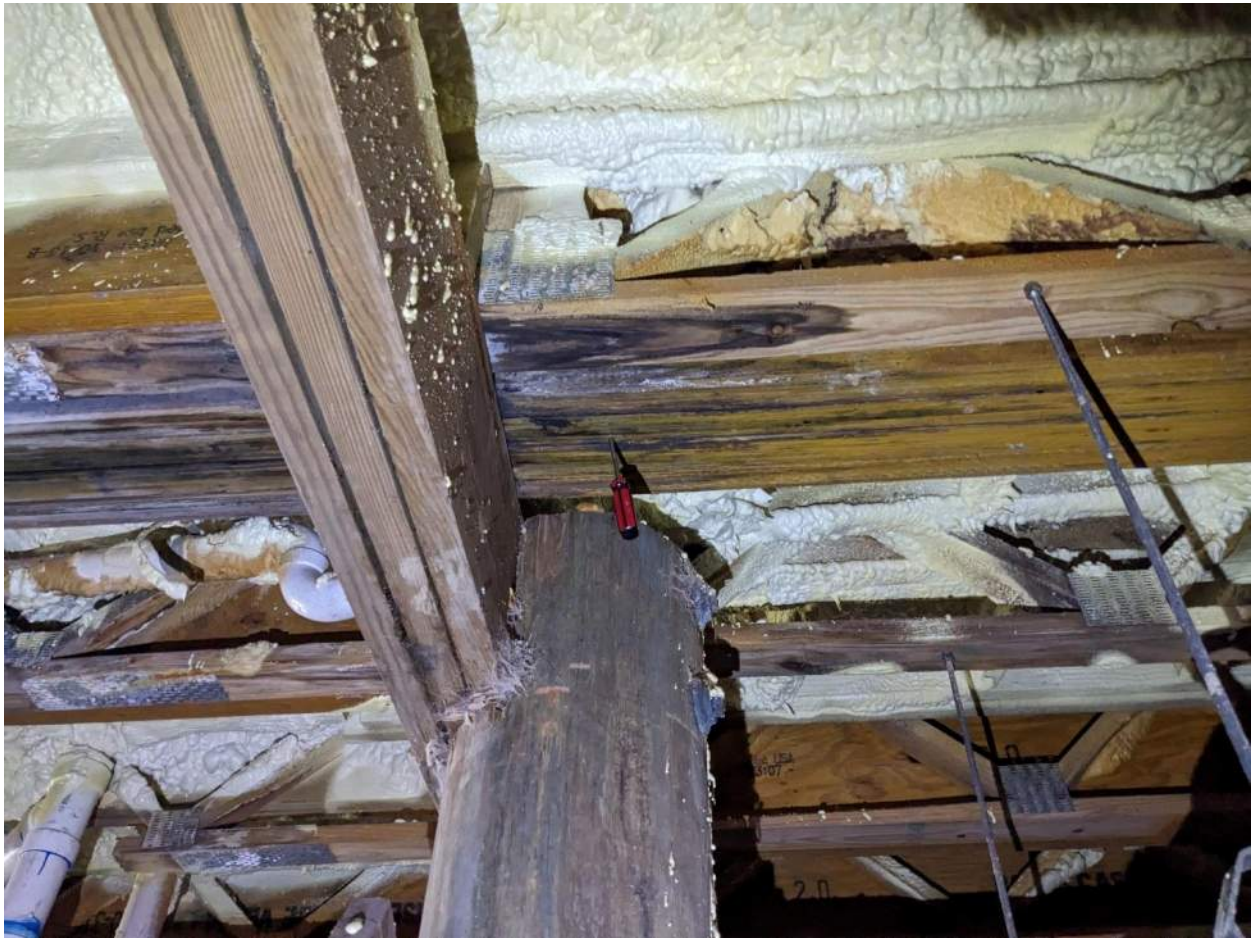


Photo 34



Photo 35



Photo 36



Photo 37



Photo 38



Photo 39



Photo 40



Photo 41



Photo 42



**Photo 43**



Photo 44



**Photo 45**



Photo 46



Photo 47

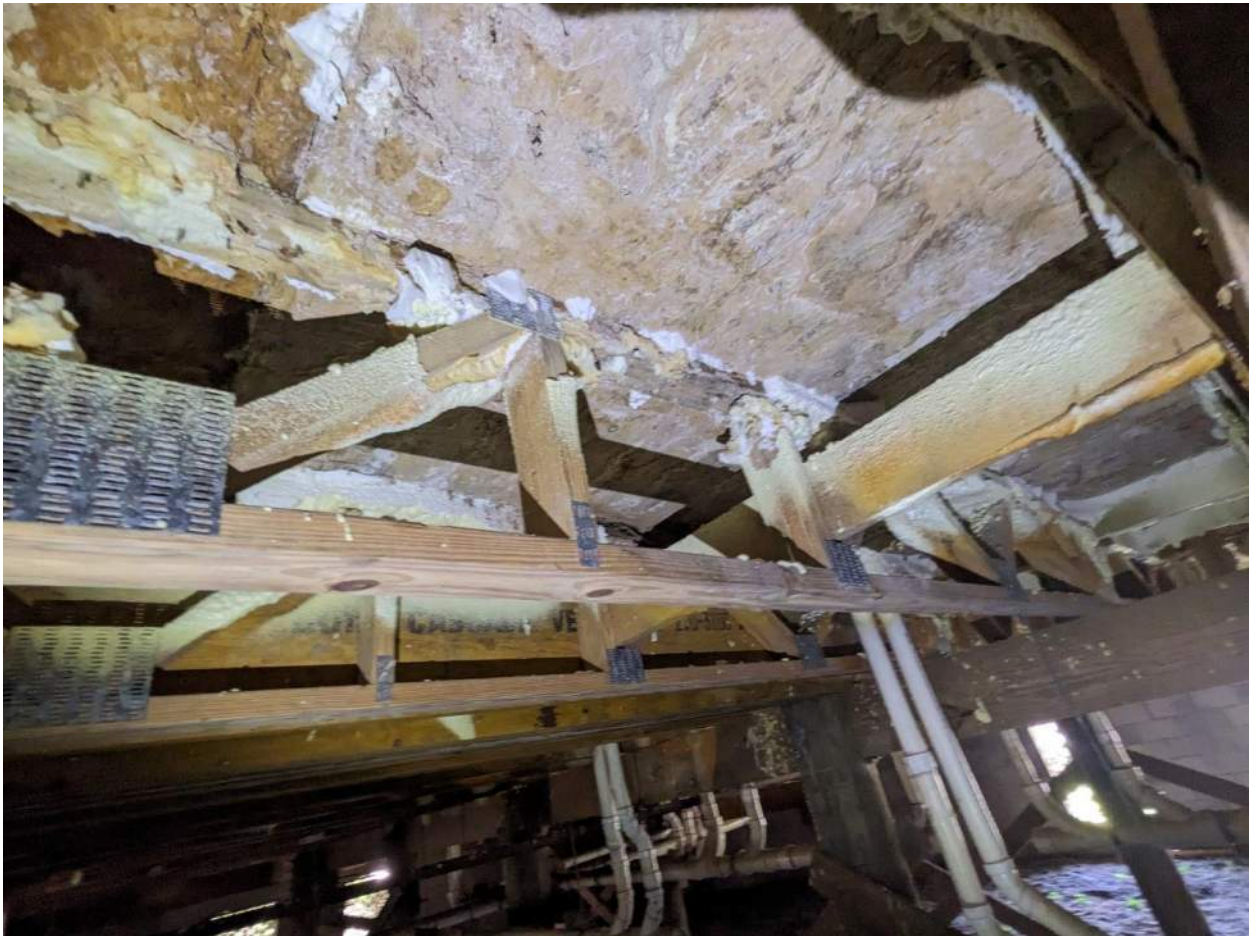


Photo 48



Photo 49



Photo 50



Photo 51



Photo 52



Photo 53



Photo 54



Photo 55



Photo 56



Photo 57



Photo 58



Photo 59



Photo 60



Photo 61

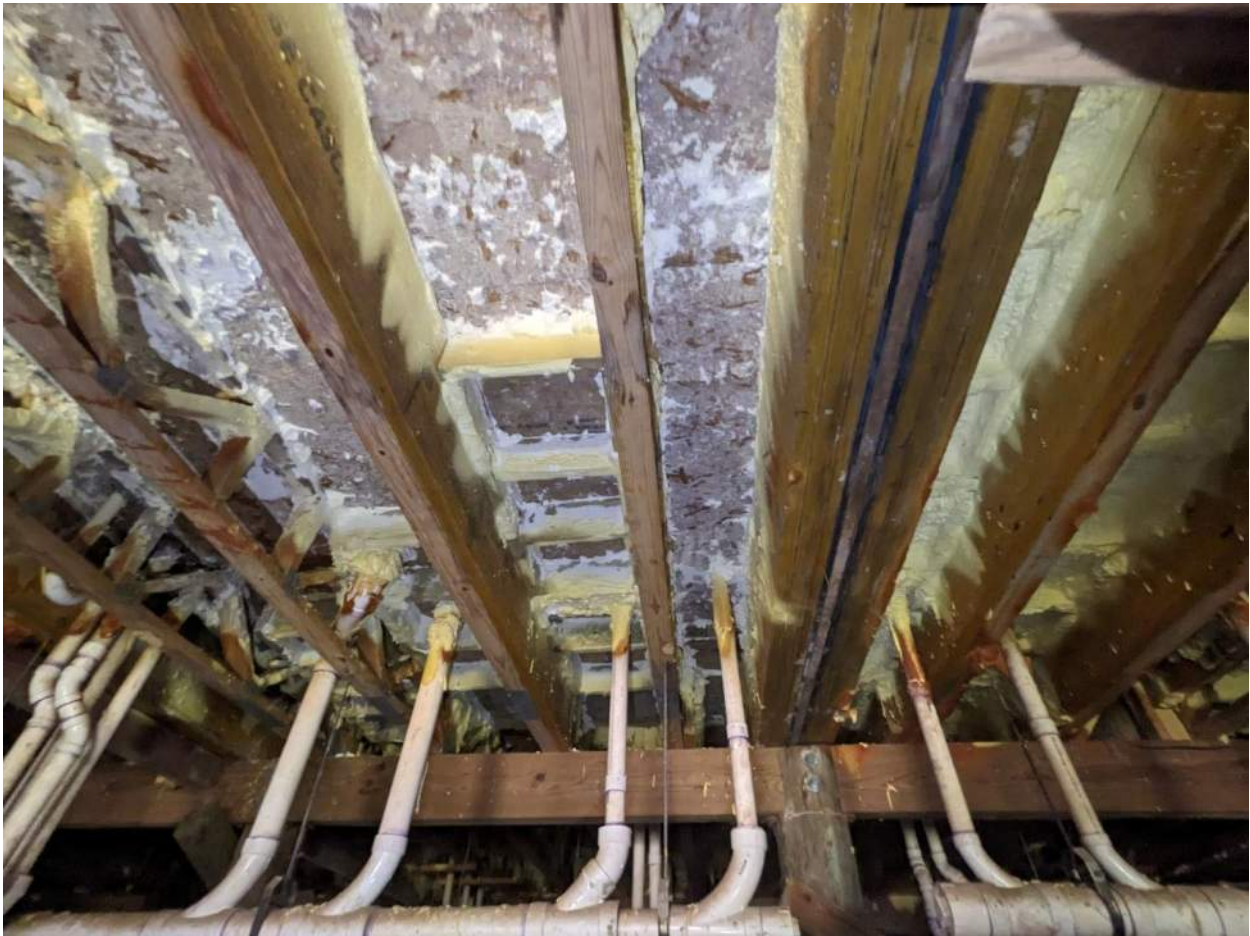


Photo 62



Photo 63



**Photo 64**