October 3, 2025

Mr. John Francis Roman
Hightstown Borough

RE: Structural Inspection
YMCA 230 Mercer St, Hightstown, NJ
MPP Project No: 25-1625

Dear Mr. Roman,

Per your request, we visited the above referenced site on September 23rd, 2025, to evaluate the structural stability of the property located in Hightstown, NJ. Our evaluation is based only on the readily exposed and accessible areas of the structure and not based on any structural analysis. At the time of our site visit the building was vacant and uninhabited.

The above-mentioned structure is a two-story building with a gable roof. The age of the building is unknown but is believed to be at least 130 years old. The framing for the building consists of exterior walls that are made up of conventional 2x wood framing with brick veneer. The floor framing is made of conventional 2x wood framing sitting on either steel wide flange beams or on 2x wood beams. The roof framing is also made of conventional 2x wood framing.

The structure has a fire escape stair on either side of the building. The structure has a full basement. The basement consists of a rubble stone masonry wall construction with a slab on grade. The first floor (which is above the basement) which has the above-mentioned floor framing, has the 2x wood joist beams sitting on a 2x wood girder beam which is supported by thin "lolly" round columns.

OBSERVATIONS

Many features of the existing building are indicative of the age of the building. As such, this report focuses primarily on structural integrity issues that pose a safety hazard and recommendations for related repairs to make the property habitable.

In general, the overall structural condition of the residence is in a poor condition and would require extensive repairs before it is made habitable. The building also requires significant removals and repairs of Architectural features. The following is a list of the specific observations made during our site visit, referenced with photos:

General Exterior - Reference photo set #1 to #9:
Photo set #1 & #2 – General exterior photos of the front, side and back of the existing building when viewed from the exterior. The building is clad with brick.

Photo set #3 – There are many signs of the roof being either shifted and/or settled when viewed from the front and side of the property. There are many signs indicating the roof is not levelled and has racked causing various elements to shift out of alignment.

Photo set #4 – There are several cracks in the exterior façade and some of the bricks in the façade are either loose or missing (repointing).

Photo set #5 – The front porch is severally damaged and exhibits cracks.

Photo set #6 – The concrete stair on the back side of the building is severally damaged and exhibits cracks.

Photo set #6 & #7 – There is also evidence of vegetation growth in several areas of both the exterior façade and the ground level.

Photo set #8 – The fire escape stair on both sides of the building are severely damaged and corroded.

Photo set #9– The chimney on the roof is damaged by evidence of cracks and exposed bricks.

Basement & Foundations - Reference photo set #10 to #12:
Photo set #10 – The building has a full basement with basement walls constructed with rubble stone masonry and it has thin and round "lolly" columns and masonry columns that support the first floor's floor system of 2x conventional wood framing. The walls showed cracks in some locations.

Photo set #11– The round columns were corroded along its length and very severely corroded at the base at some locations, compromising integrity of the same. It was observed that the original joists were improperly connected at the point of bearing on the foundation wall i.e. no adequate bearing and/or mechanical connection to the basement walls, with some joists being connected by means of ledges.

Photo set #12 – The joists were slightly rotted at various locations. The wood girder beam supporting the wood joists exhibits wood checking (cracks along the beam length), wood chipping and severe rotting near the column location.

First & Second Floor - Reference photo set #13 to #18:
Photo set #13 & #14 – The photos show the general interior condition of the first and second floors. The floor framing consists of wood framing supported by steel wide flange beams. There are portions of the walls, ceilings and floor finishes that will require repairs. These may also require many cosmetic repairs.

Photo set #15 – In the corner of one of the rooms at the first floor, there is severe damage in the floor where the floor meets the exterior wall. The floor exhibited cracks and holes.

Photo set #16 – The walls and ceiling in some rooms had mold and stains which are evidence of water damage. There are many areas of the ceiling where the ceiling support members are snapped and broken and would require repairs.

Photo set #17 – It was also observed throughout the building, that there were significant cracks and separations between corners of perpendicular walls, and corners where the wall and ceiling intersect.

Photo set #18 – On the second floor – there were stains on the floor and some of the rooms, the floor was

not levelled. The floor was bending and exhibited deflection.

Gable roof – Reference photo set #19 to #21:
Photo set #19 & #20 – There is a ladder from the second floor to access the attic and the gable roof. The gable roof is made of wood truss framing. The wood framing exhibits mold and stains indicating water damage in some areas.
Photo set #21 – When observed from outside, there seems to be several undulations in the roof such as hip bending and hip line bending.

EVALUATION AND ASSESSMENT

Based on the above-mentioned observation, the subject building is unstable, inhabitable, and unsafe for occupancy. The subject building has experienced significant damage with cracks in walls, foundations, floors and ceilings with several portions being compromised due to water damage or mold.

There is vegetation growth in many areas of the building which indicates that there are internal cracks in the building. This indicates severe structural damage of the exterior wall system due to water seepage which would explain the mold and water stains in the walls, ceiling and floors of the building. These cracks will weaken the wall system and with the evidence of cracks from the inside of the building, this indicates potential failure of the wall system and therefore, the wall system would require extensive repair. Loosened or missing bricks in the exterior façade indicate brick repointing which also need to be repaired and replaced.

The roof structure has several undulations (hip and hip line bending) and with the evidence of mold from the inside (the attic), it indicates that the roof structure is severally damaged and hence needs to be demolished and replaced. The chimney on the roof is also severally damaged. It may collapse during heavy wind conditions and hence, needs to be demolished and replaced in kind.

The floor system on the second floor exhibits settlement and with the evidence of water damage (stains), it can be concluded that the floor system is compromised, severally damaged and needs extensive repair. Presence of mold, water stains and cracks in the walls and ceiling of both the first and second floors indicate that the walls and ceiling are weakened, compromised and need to be repaired extensively.

In one of the rooms on the first floor, there is severe damage to the floor system. The floor system would have to be replaced in kind at that location.

At the basement level, the wood girder beam supporting the first floor's wood framing has mold at the location just above the column. This indicates that the girder beam has been in contact with water which would weaken it and therefore, the beam would have to be replaced. The columns are also heavily corroded at the base and hence, they would have to be either repaired or replaced.

Damage to the building is very severe as listed above and given the extensive nature of the repair required, it is advisable to have the building demolished.

RECOMMENDATIONS

Based on our observation and evaluation, the existing building is unstable, inhabitable, and unsafe for occupancy and requires several extensive repairs or replacement of many of the building components.

In general, the building requires many other repairs to make it habitable, including, but not limited to, exterior siding, roofing, interior walls, interior floors, interior ceilings, windows, and MEP systems.

Given the extensive nature of the repair and replacement required and the age of the building and construction, it is in our professional opinion that the benefit and cost efficiency of demolishing and reconstructing would greatly outweigh the repairs required for the structure.

We appreciate the opportunity to assist you with this matter. If you have any questions regarding our assessment, findings or recommendations, please feel free to contact our office.

Sincerely,

Giri Subbu Rathinam Arun Kumar
MPP Engineers, LLC

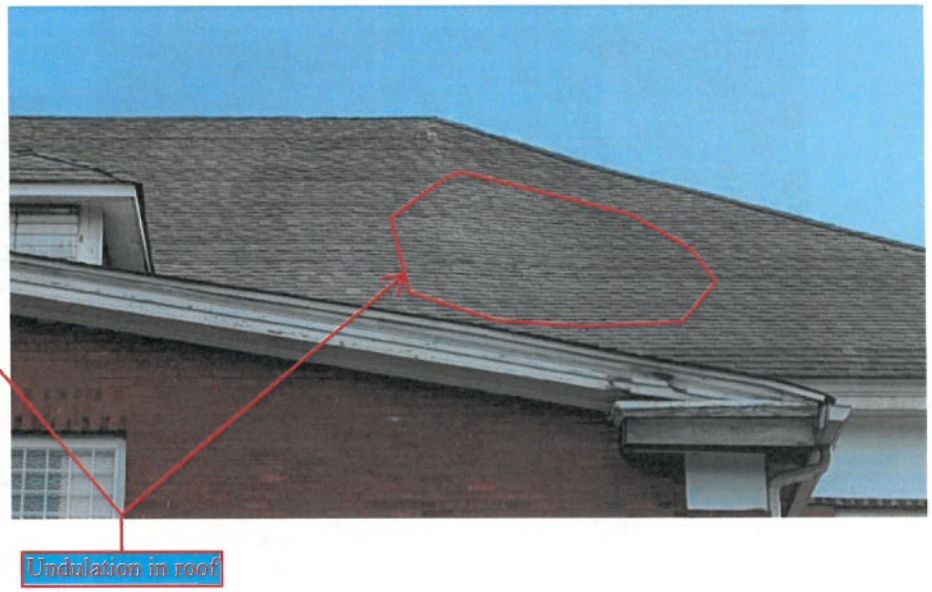
Ashutosh Patel, PE
NJ Prof. Eng. Lic. No. 24GE04638100
Principal

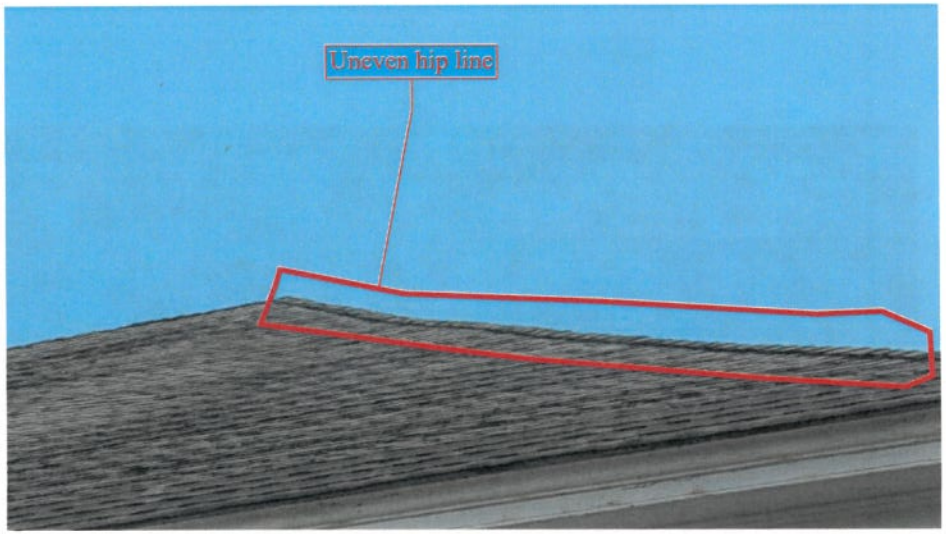
Attachment
1 – Photos set #1 - #21

PHOTOS SET #1

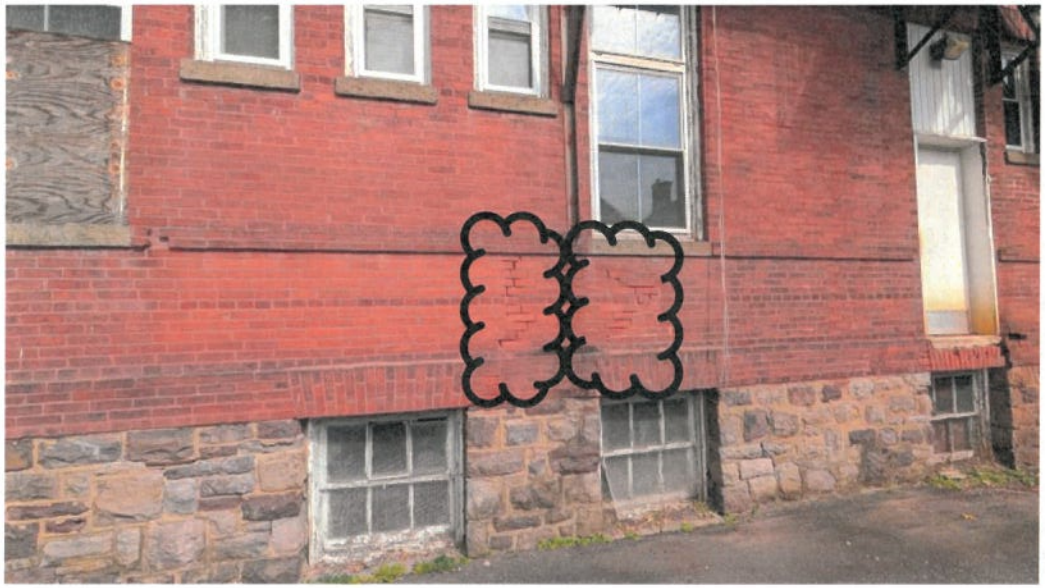
PHOTOS SET #2

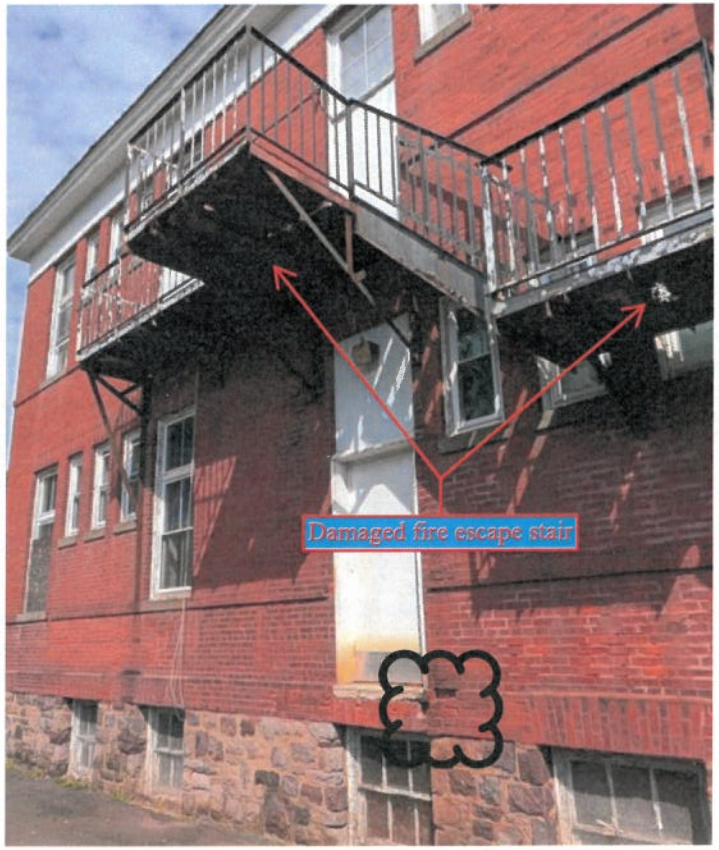
PHOTOS SET #3





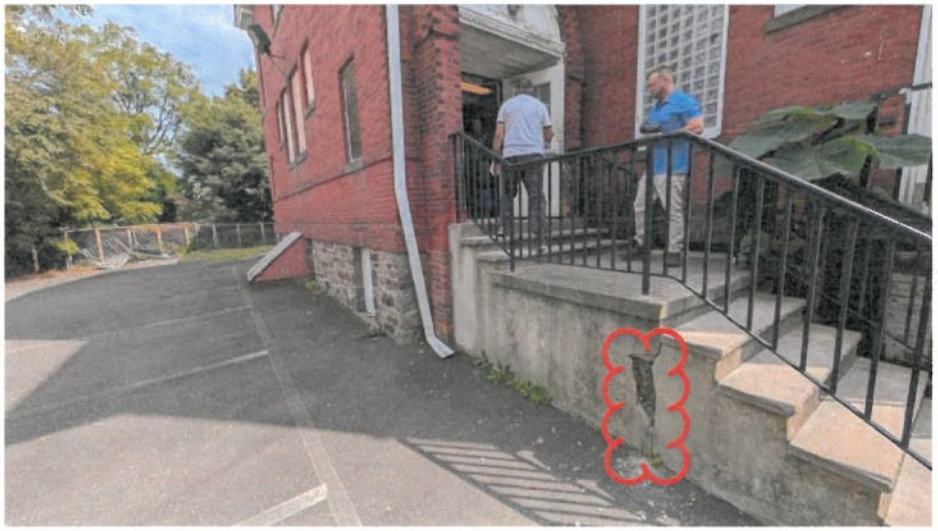
PHOTOS SET #4





PHOTOS SET #5

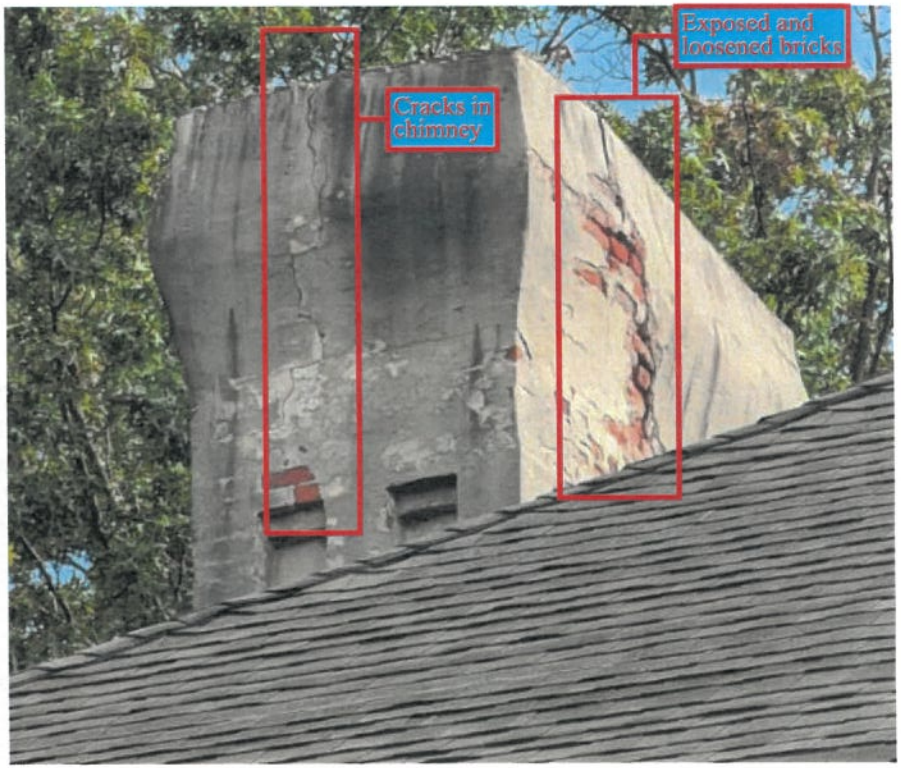
PHOTOS SET #6



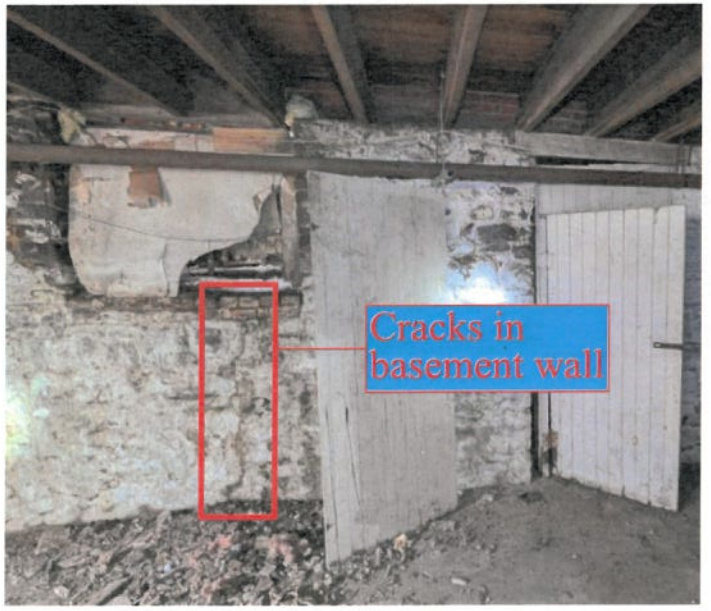
PHOTOS SET #7

PHOTOS SET #8

PHOTOS SET #9

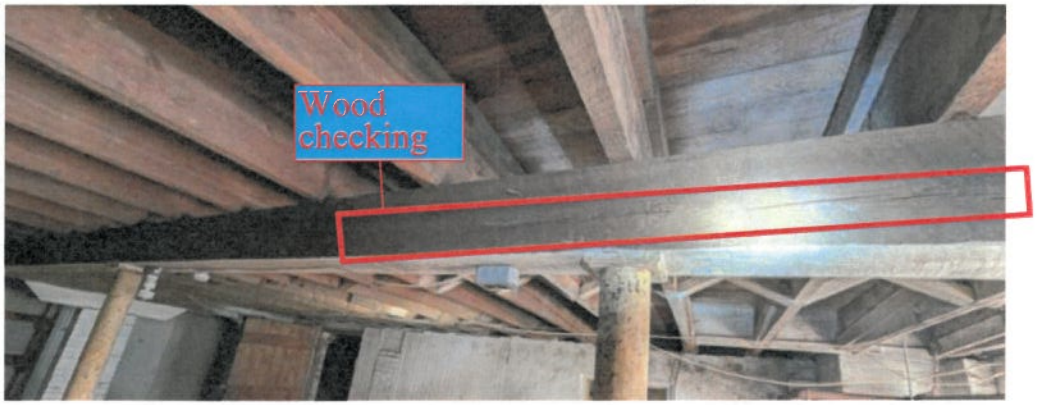


PHOTOS SET #10

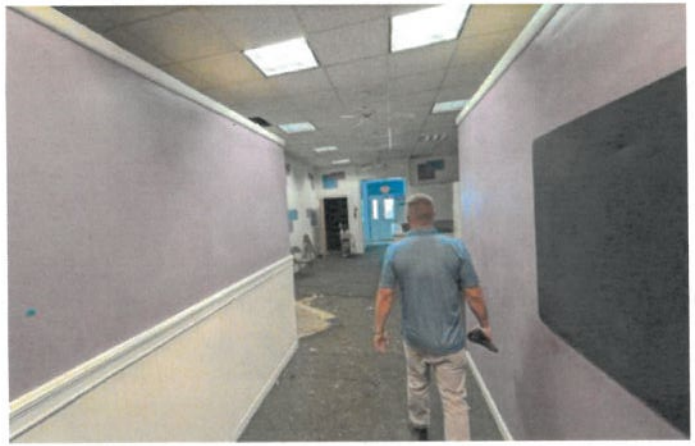


PHOTOS SET #11

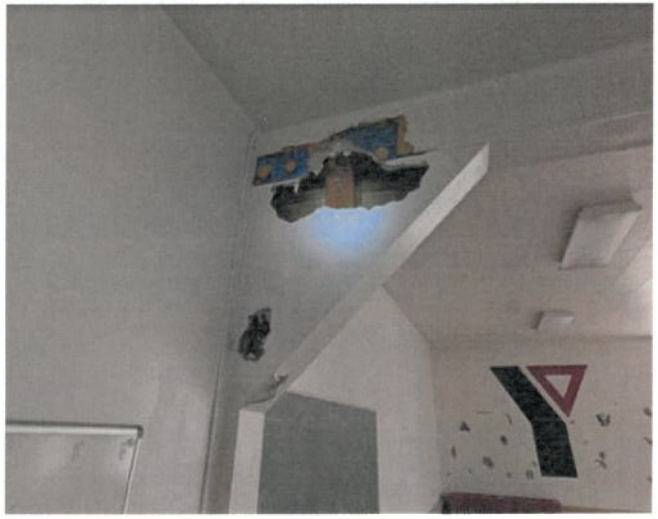
PHOTOS SET #12



PHOTOS SET #13



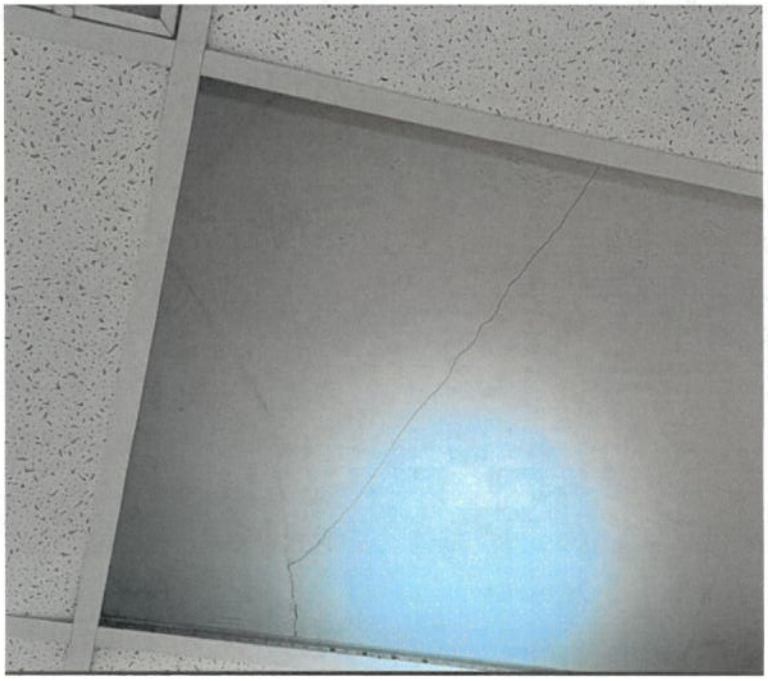
PHOTOS SET #14



PHOTOS SET #15

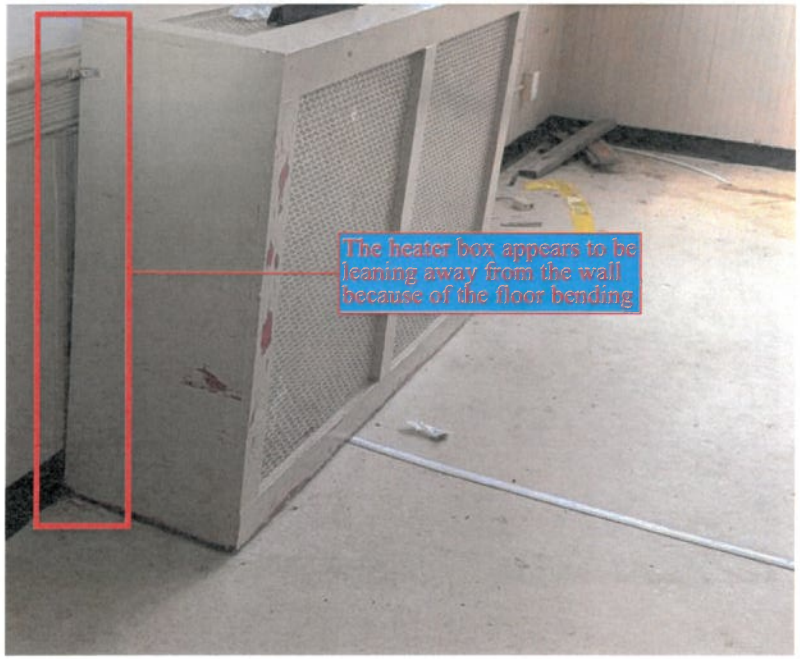
PHOTOS SET #16

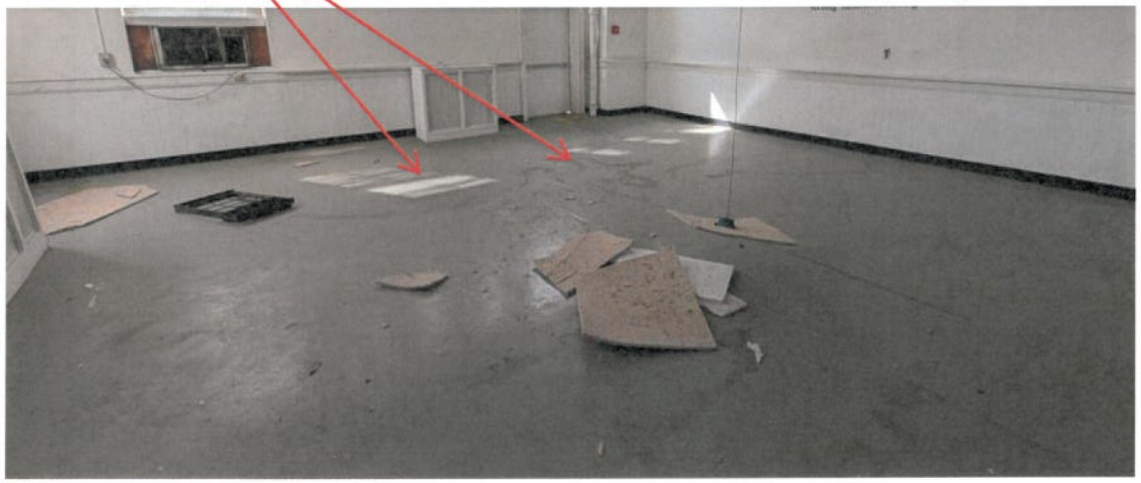
PHOTOS SET #17



PHOTOS SET #18

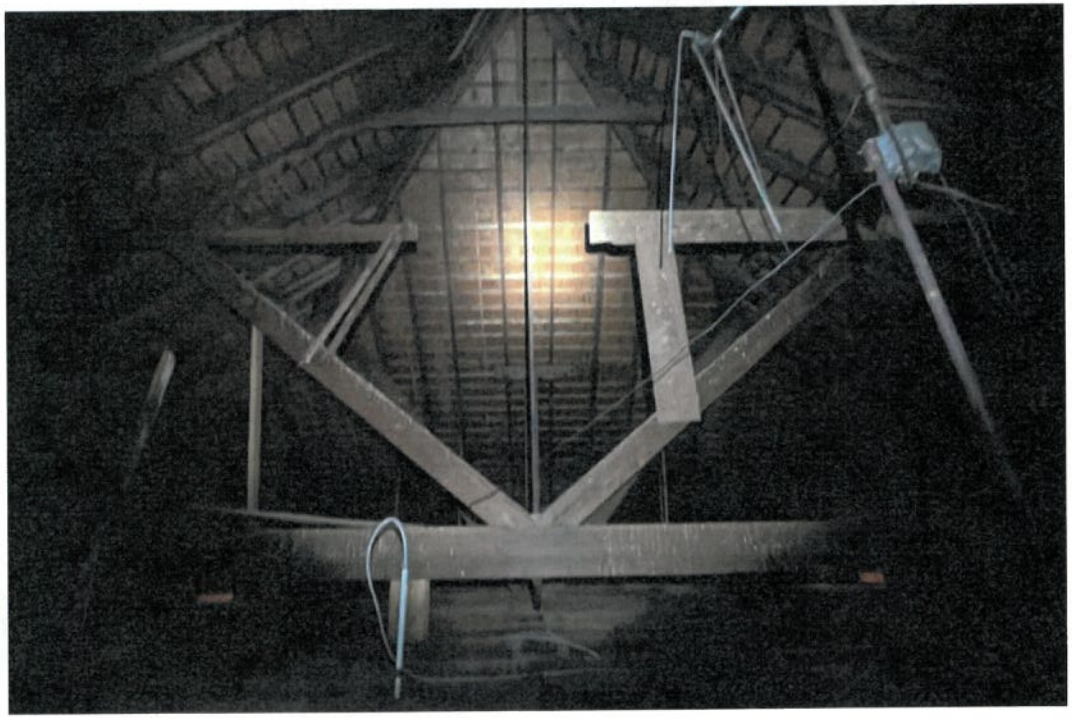
Water stains





PHOTOS SET #19

PHOTOS SET #20



PHOTOS SET #21