



## R.F. Mitall & Associates, Inc.

ENGINEERS ▾ CONSULTANTS ▾ SURVEYORS

December 15, 2015

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Mr. Greg Bachy  
Borough of Swissvale  
7566 Roslyn Street  
Pittsburgh, PA 15218

Re: Municipal Building

Dear Mr. Bachy

As you requested, R. F. Mitall & Associates, Inc. has conducted a visual inspection of the brick facade on the portion of the municipal building housing the council chambers.

The council chambers are on the second floor of the municipal building. This section of the building is believed to have been constructed as two additions to the original structure. According to the borough manager, it is believed that the last addition was placed over 80 years ago.

The problems noted during our visual inspections are as follows:

1. Brick veneer exterior bulging outward on the left side of council chambers.
2. Brick veneer at the above parapet wall bulging and leaning inward on the right side (Roslyn Street side).
3. Exterior separation in the brick at the vertical joint above Roslyn Street.
4. Water stained ceiling tile on both sides of council chambers.
5. Water stained ceiling tile at the front of council chambers.

The building was viewed on two separate occasions by Robert F. Mitall, P.E. and Lenny White, P.E. On the first visit, the above problems were noted and an attempt was made to remove the suspended ceiling and view the underside of the roof. A visual inspection of the exterior roof was made with the assistance of the fire department ladder truck. At our request, additional portions of the interior ceiling were removed to see the roof framing structure.

The roof over this portion of the building is wood frame with rubber membrane roofing material on the exterior. Notice that the roof has a peak running along the long axis of the room with water being directed to scuppers or drains on opposite sides of the building (street and garage).

The roof framing system consists of three wood truss type structures perpendicular to the long axis with wood members running between them supporting the roof and interior ceiling. The ceiling actually consists of two ceilings. An older 12" by 12" acoustic tile is affixed directly to the wood roof frame members. Below this is a newer 2' by 4' suspended type that is visible from the room's interior. The area between the ceilings consists of HVAC duct work and electric cable feeding the rooms lighting system. Part of the difficulty in assessing the condition of the roof is the presence of the two ceiling systems which greatly obscures the visibility.

During the observation process, it could not be determined how the walls are constructed without removing a portion of plaster. What was observed at the top was a structural clay tile with a brick veneer. This type of construction was common in the early part of the 21st century.

It was noted by observing the roof from the fire truck ladder that there was standing water on the roof near the two scuppers (roof drains). It was also noted that the various wood roof members were water stained or damp, and in one area water droplets were hanging from the roof rafters.

It is believed that the roof membrane system at the perimeter of the roof has been compromised. This has allowed water to flow into the ceiling system. It is also thought that water has entered the void in the walls and through freeze action has damaged or pushed the brick veneer.

It is recommended that the following action be immediately undertaken.

1. Barricade off the sidewalk and parking area adjacent to Roslyn Street where the brick is leaning inward. This should be a solid barricade or fence that would prevent debris from bouncing into the street in the event of a failure.
2. The garage area beneath the left side bulging brick veneer should be cordoned off with no occupancy or transit allowed since a wall collapse could penetrate or comprise the garage roof.
3. As the advent of cold weather is imminent, a competent roofer should make emergency repairs to the roof and drains to eliminate the possibility of more water entering the building structure.
4. Lastly the borough should consult with a masonry restoration firm to decide if the brick veneer should be removed and relayed or if wall anchors would prevent the brick veneer from falling.

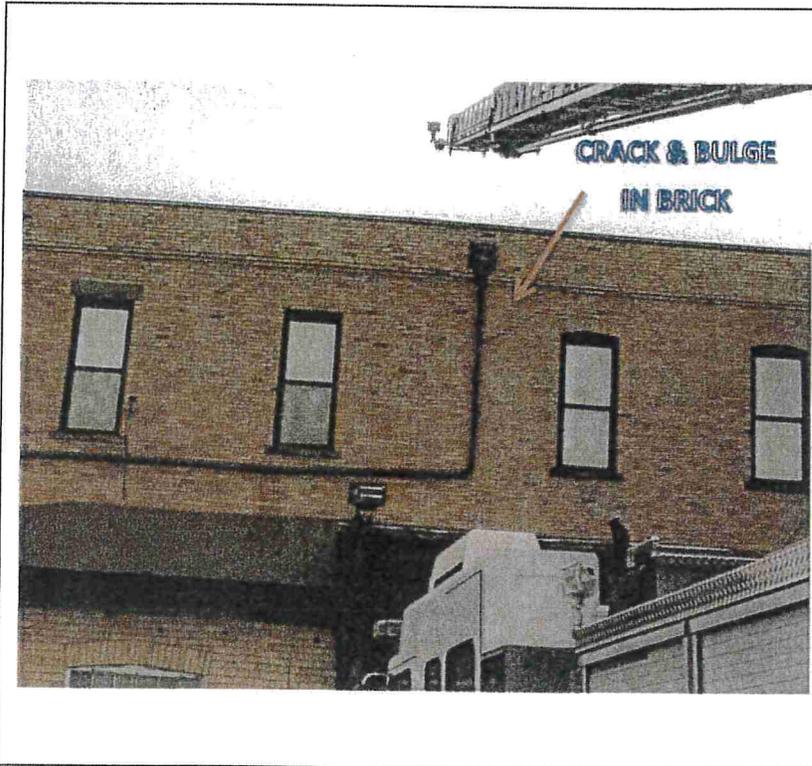
I saw no signs that the stability of the floor or roof is comprised; however, unless corrective action is immediately taken sudden temperature changes or heavy precipitation could cause a sudden collapse. It is recommended that this area be closely monitored on the interior and exterior looking for creep movement; or additional deterioration in the structural elements.

Conclusions drawn in this report are based on observations and on information available, known and declared at the date of investigation and/or the time of preparation of this report and are made under sound engineering principles. Should additional information be uncovered or made available, we retain the right to revise or supplement our report accordingly. This report is furnished as privileged and confidential to the addressee. Release to any other company, concern, or individual is solely the responsibility of the addressee.

Very Truly Yours,



Robert F. Mitall, PE



**PHOTOGRAPH #1**

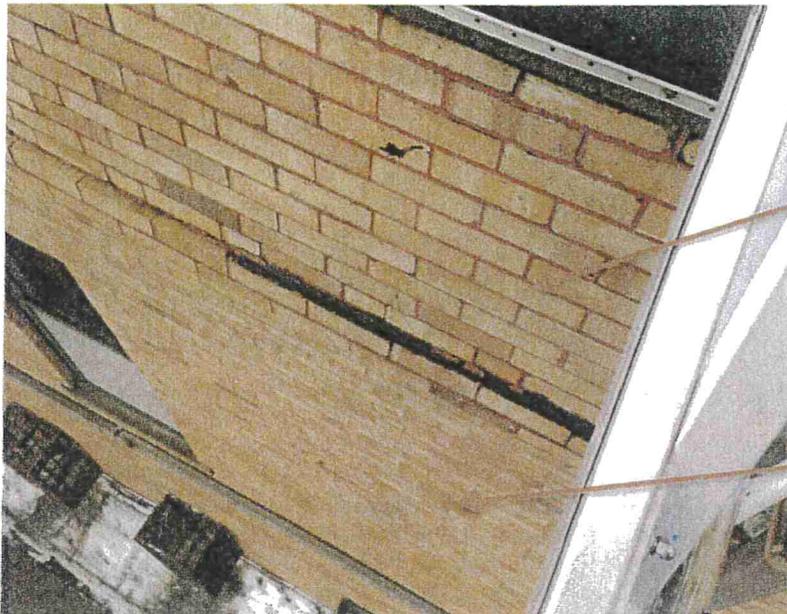
2<sup>ND</sup> FLOOR ENTRANCE ABOVE GARAGE  
(LEFT SIDE OF COUNCIL CHAMBER)



**PHOTOGRAPH #2**

SCUPPER ABOVE GARAGE

**BRICK DISPLACED**

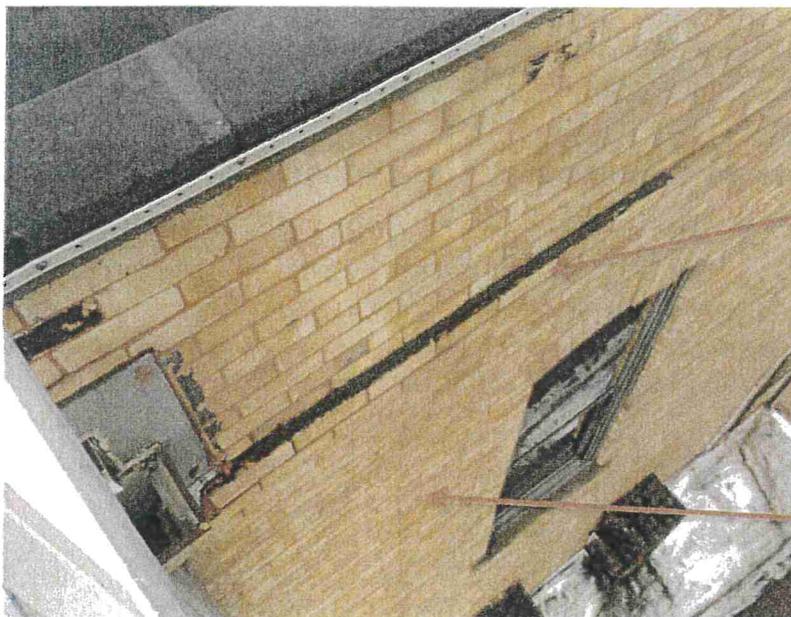


**PHOTOGRAPH #3**

WALL ABOVE GARAGE

**PUSHED BRICK**

**BULGING WALL**

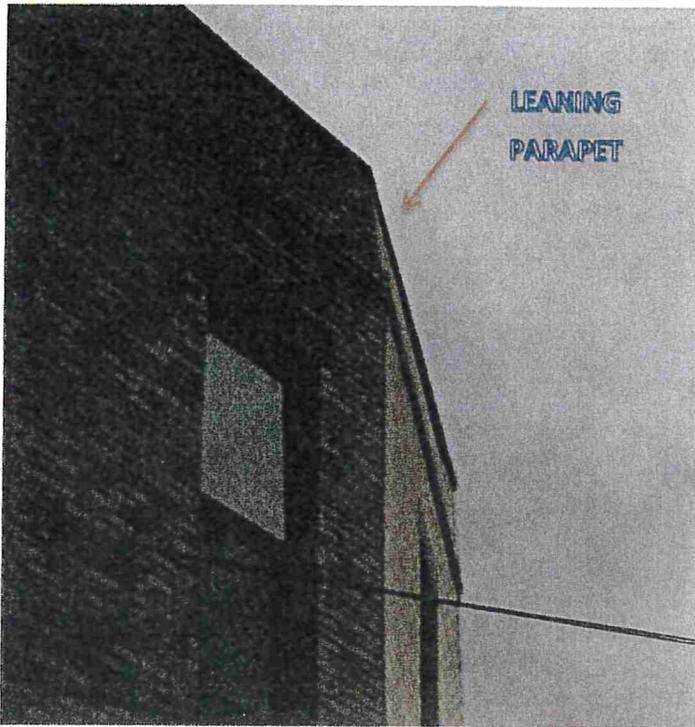


**PHOTOGRAPH #4**

EXTERIOR WALL ABOVE GARAGE

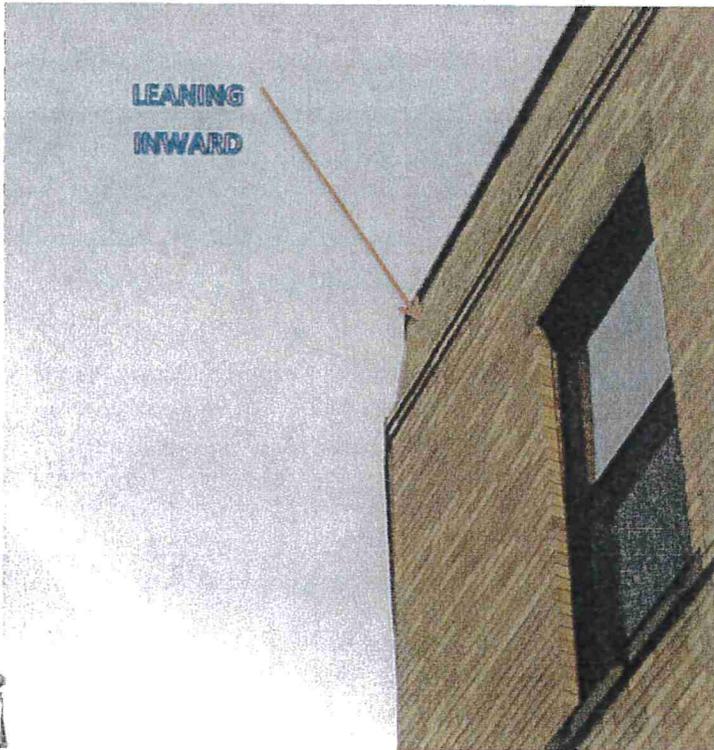
**DISPLACED BRICK**

**BULGING WALL**



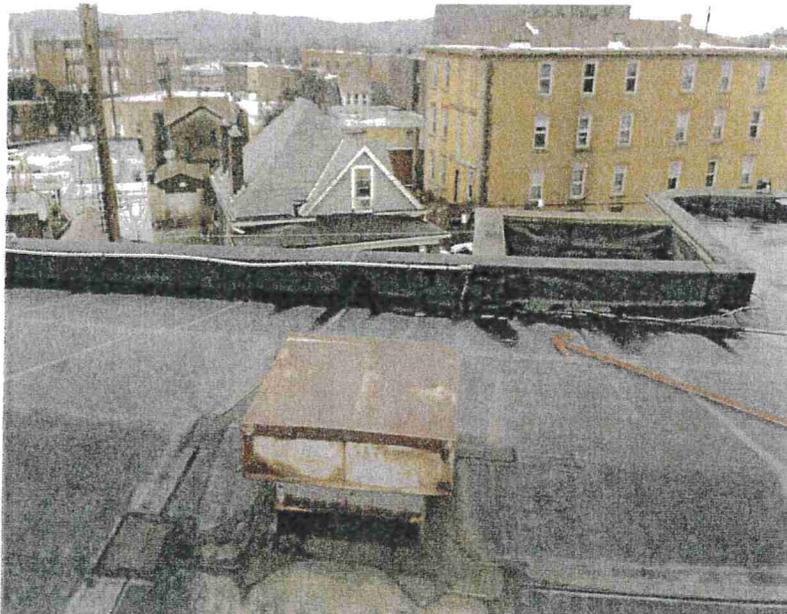
PHOTOGRAPH #5

ROSLYN STREET EXTERIOR TOP  
OF WALL



PHOTOGRAPH #6

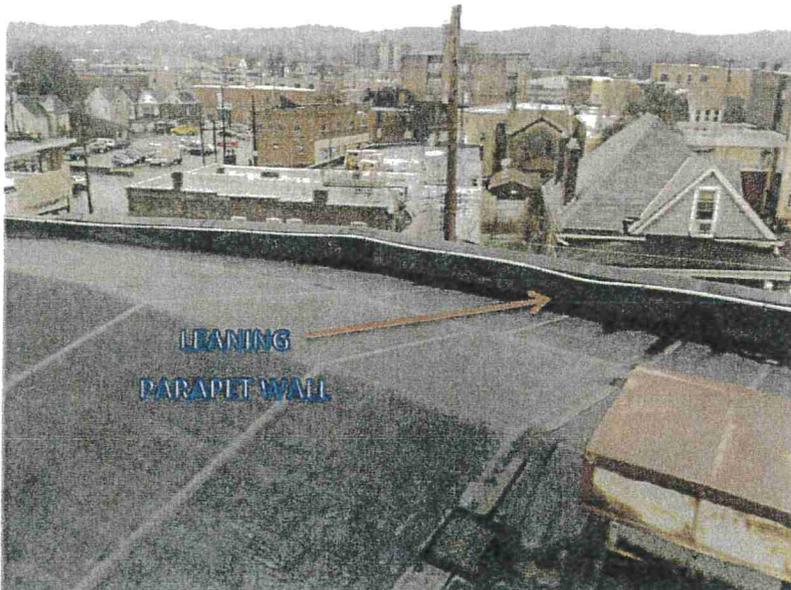
ROSLYN STREET EXTERIOR TOP  
OF WALL



**PHOTOGRAPH #7**

ROOF ABOVE ROSLYN STREET

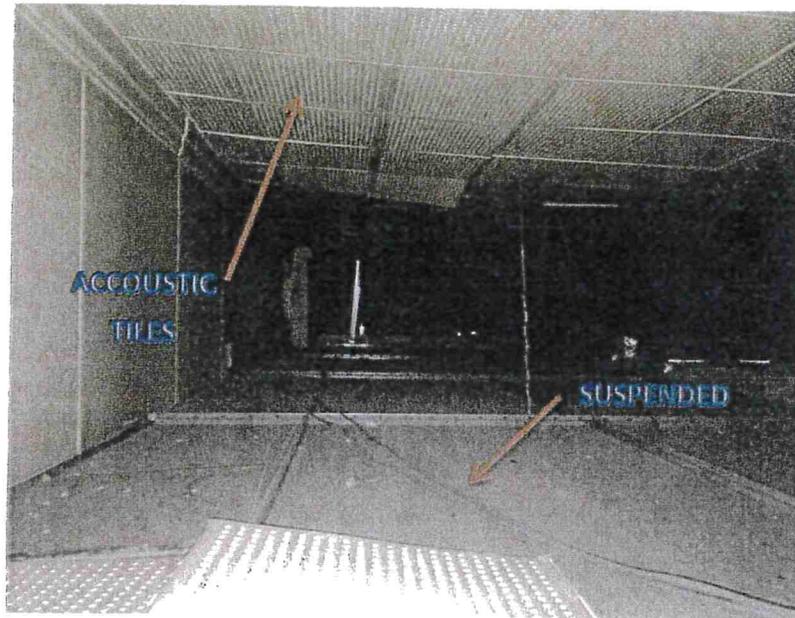
**POND OF WATER  
NEAR SCUPPER**



**PHOTOGRAPH #8**

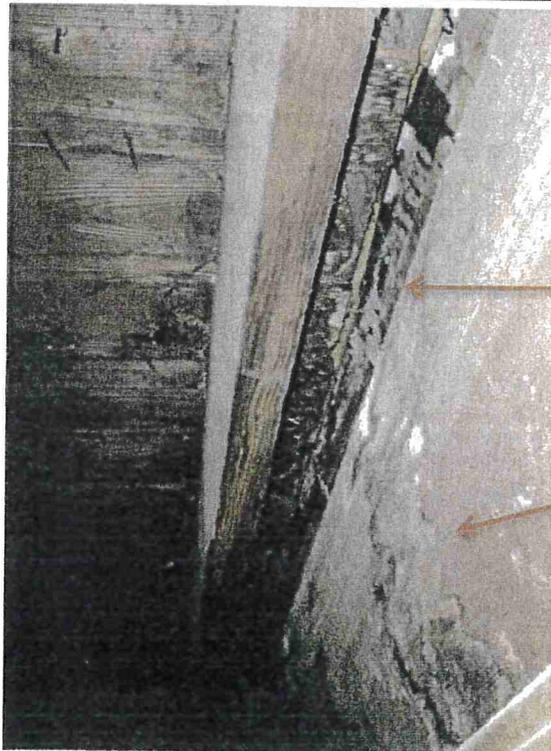
ROOF ABOVE ROSLYN ST.

**LEANING  
PARAPET WALL**



**PHOTOGRAPH #9**

INTERIOR SHOWING DOUBLE  
CEILING

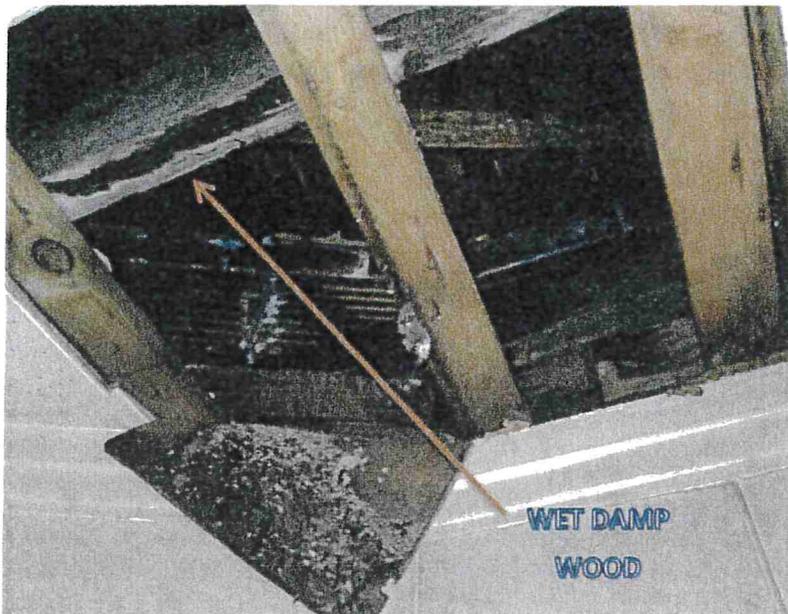


**PHOTOGRAPH #10**

WATER STAINED & DAMP  
CEILING JOISTS

**DAMP WOOD**

**WATER STAINS**



PHOTOGRAPH #11

INTERIOR ROAD ABOVE ROSLYN



PHOTOGRAPH #12

INTERIOR CEILING

DRIPPING  
WATER



**PHOTOGRAPH #13**

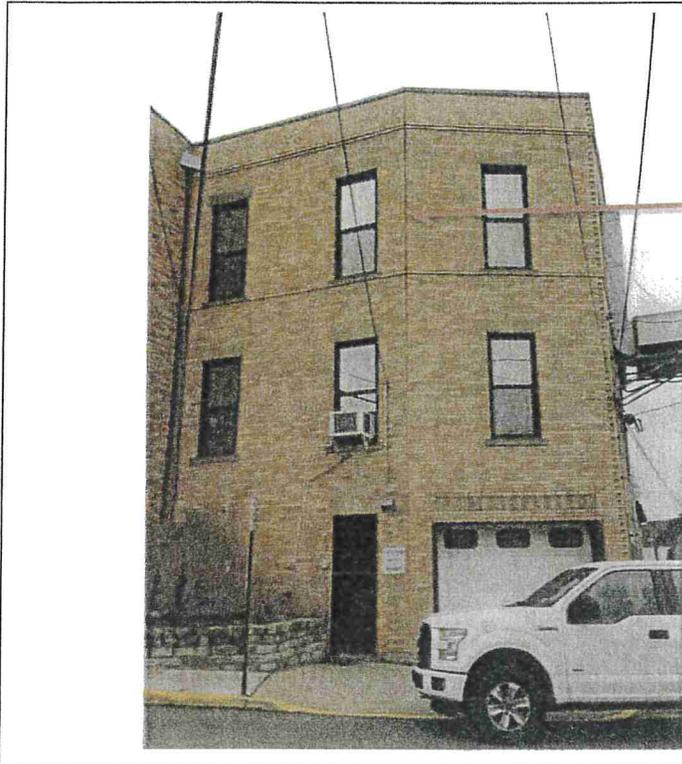
WOOD TRUSS (BUILT UP 2010)



**PHOTOGRAPH #14**

INTERIOR CEILING

**WATER STAINED  
DAMP WOOD  
FRAMING**



PHOTOGRAPH #15

ROSLYN STREET SIDE

**VERTICAL  
SEPARATOR AT  
CORNER**