



Police Department Building



City Hall Building

**BUILDING ANALYSIS  
OF**

**ALEXANDER CITY  
POLICE DEPARTMENT  
AND  
CITY HALL**



**ALEXANDER  
CITY  
ALABAMA**

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## BUILDING ANALYSIS OF ALEXANDER CITY POLICE DEPARTMENT AND CITY HALL

### INTRODUCTION

PH&J Architects, Inc. were retained to survey and analyze the condition of the Alexander City Police Department Building and City Hall Building. The reason for performing these surveys was to be able to create estimates of probable cost to renovate each of the buildings and probable cost to demolish each of the buildings. The standard for the renovations would be to bring the buildings up to the 2015 International Building Code for those parts of the buildings that would be affected by a renovation project and to bring the buildings into compliance with the ADA.

PH&J assembled a team of engineers – structural, mechanical-plumbing-fire protection, electrical, a hazardous materials consultant, and a third-party estimator to assist with the analysis and estimates. After an initial visit by the architect to review the buildings on March 2, 2020 the team returned on April 4th to make their surveys. The surveys that were conducted were visual in nature with no destructive investigations except for sampling by the hazardous materials consultant.

There are many judgments that must be made in the course of a review of this type. The planned Programs for the new uses, of the buildings that are to be renovated, can greatly affect the design decisions, thus impacting the cost. Challenges and deficiencies can be solved multiple ways each having a ripple effect on other decisions. This review is not a design effort and with no specific Program to address, our direction has been to solve the problems as they exist and to assume that the buildings will be used in the general configuration that they currently exist. Renovations that reconfigure floor plans or structural elements could possibly produce a more efficient layout – if there was a known use for the buildings, however that could also add additional cost.

The following report contains a summary of our team's findings and an additional appendix with each engineer's complete report.



Photo Credit: Rivers Langley, 2012



Photo Credit: Rivers Langley, 2012

## POLICE DEPARTMENT BUILDING

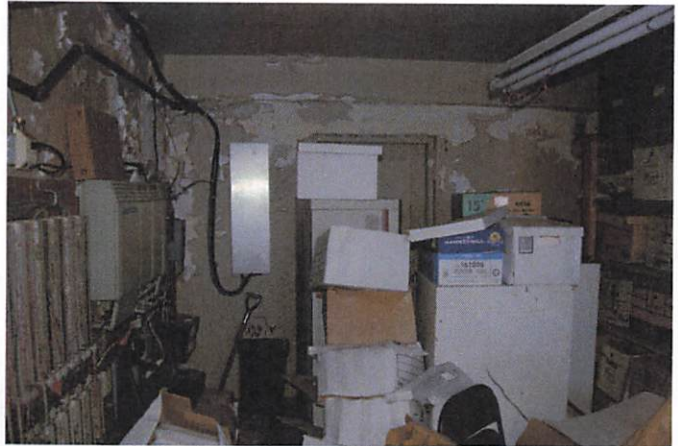


### GENERAL BUILDING DESCRIPTION

The building that houses the Alexander City Police Department was originally constructed as the City Hall. The building sits in a prominent location where Lee Street, Tallapoosa Street and Church Street join. The original building, completed in 1939, is three stories with a total area of approximately 14,745 square feet. In 1982 a three-story addition was built on the north side of the original building. This addition totals approximately 3,000 square feet, so that the total building area is approximately 17,745 square feet (5,915 sf per floor). The 1939 building incorporates a courtroom on the top floor (3rd Floor), administrative offices and 911 Dispatch on the second floor (2nd Floor), with the lowest level (1st Floor) containing a jail (now used for storage), police muster room, police offices, mechanical and electrical spaces, and archived evidence storage. The 1982 addition includes a public elevator that provides access to all three levels. This elevator is reached on the lowest level by an entrance on the north side of the building. Offices occur on the upper two floors and storage spaces on the lowest level. Public toilets are located on all three floors.

### **HAZARDOUS MATERIALS**

Environmental Materials Consultants, Inc. from Montgomery, Alabama performed a survey of the Police Department Building in 2008 for the City. They were able to use the data from that survey along with observations from this effort to compile their report (see Appendix). As explained in EMC's report, the Police Department Building does contain hazardous/regulated materials including asbestos, fluorescent lamps with mercury, a few fluorescent light fixtures with ballasts containing PCBs, and lead based paint. The report discusses in some detail the requirements for abatement and disposal of these materials. If the building is demolished there will still be requirements for the abatement of some of the materials, but it should not be as extensive as it would be for a renovation.



*Access to Boiler Room where Hazardous Materials were Discovered.*

### **AMERICANS WITH DISABILITIES ACT**

The Police Department Building has a number of non-compliant accessibility issues. Only one entrance located on the north side, ground floor is marked as accessible and it is not compliant. The ADA requires that the number of accessible entrances to be provided shall match the number of required exits, which would be at least two for this facility. The other non-compliant entrances should have signage directing handicapped users to an accessible entrance.



*Current ADA Entrance*

The handicap parking and ramps that serve the north entrance need to be upgraded. Parking signage and striping needs to be corrected. A van-accessible space needs to be added and the ramps need to have handrails added.

The accessible route vertically through the building is by means of the elevator in the 1982 addition. It is sized for ADA compliance. The controls and communications will need to be upgraded.

The toilets in the 1982 wing are not completely accessible but should not require major work to be made compliant. The remaining toilets in the building, which are generally small single user rooms are, for the most part, not accessible and would not be worth renovating. Additional restroom facilities, if needed, might be constructed in the location of the old jail cells on the Ground Floor. Plumbing exists there now, so constructing new restrooms would be feasible.



*Current Non-Conforming Restroom*

Interior handicap accessible signage needs to be provided throughout the building. The Courtroom should have space added to accommodate wheelchair seating by removing a portion of one of the wood pews.

### **LIFE SAFETY/FIRE PROTECTION**

Under the 2015 International Building Code the Police Department Building is considered to be Type II B Construction. Meaning that it is a non-combustible structure. The Type II B designation means that the structure is not fire resistance rated. This is the case because the steel structure in the 1982 addition is not protected against fire.

The Police Department Building has two exit stairs. The stair on the east end serves the 2nd and 3rd Floors with an additional interior flight of steps down from the 2nd Floor to grade. The stair on the West end serves all 3 floors and exits on grade. The guardrails and handrails do not comply with current Code requirements. Neither of these stairs is located in an enclosed, fire-rated shaft as required by Code. The code requires that exits stairs be enclosed, but even if enclosed stairs were not required the building would be considered one Fire Area and therefore require sprinklers due to the total square footage. If the building were constructed today, the Courtroom on the 3rd Floor would have to be sprinkled along with the rest of that floor due to the Group A-3 Assembly Occupancy being located in a Fire Area more than one floor above the level of exit discharge.

The corridor doors and walls are not fire-rated and include non-rated view lights, breeze sash and transoms. The building is not sprinklered, which will require that corridors that receive an occupant load greater than 30 have a one-hour fire rating.

The building does not have a fire alarm system. This would be required in a new building with an Assembly Occupancy with 100 or more occupants above the lowest level of fire department access.

The mechanical systems are free-standing in the corridors. The return air is pulled through the corridors, which is a Code violation.

To summarize, from a Life Safety and Fire Protection standpoint the building does not meet the requirements of the 2015 IBC and associated Codes. These conditions are probably considered "grandfathered" by the Fire Marshal and Building Official as allowed by the Code. However, if the building is renovated or altered in a significant way or if the Occupancy of the building changes, these officials will likely require the deficiencies to be corrected.



*Open Stairwell*



*Free Standing Mechanical Unit with Corridor Return Air*

### **BUILDING ENVELOPE**

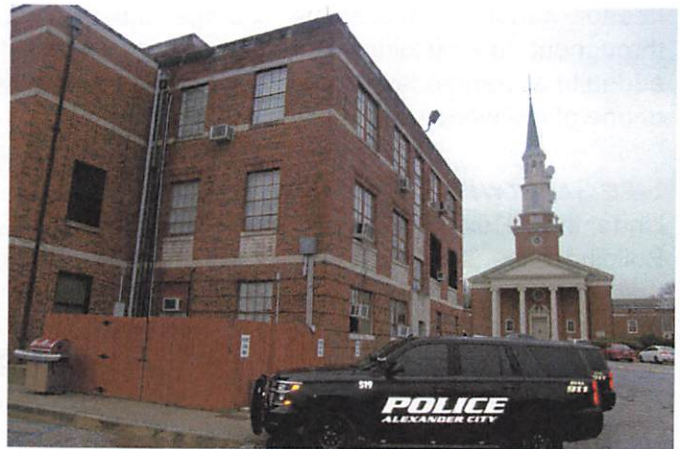
The exterior walls of the 1939 building appear to be constructed of a double-wythe of brick with plaster on the interior side of finished spaces. The original wall construction would not have included insulation nor would it have a cavity for drainage as would a more modern construction. Renovations to the building would not require that wall insulation be added, although the walls could be furred with drywall creating a space for insulation and to run new electrical and data outlets. The walls of the 1980 addition are concrete masonry with brick veneer. They would have presumably been constructed with a drainage cavity and cavity insulation.

The windows of the 1939 building are single-pane, steel frame window which are in a deteriorated condition. In a number of places the original panes and muntins have been replaced with larger panes. They offer no insulation and are probably subject to condensation when humidity and temperature are not optimal. There are at least 14 window unit air conditioners currently installed in these windows. The windows in the addition are aluminum frame, insulated units that are more energy efficient than the 1939 units.

The roof is a modified bitumen roof system. The roof appears to be in reasonable shape with two exceptions. 1) Ponding water was noted on the northeast area of the roof at the junction of the original building and the 1982 addition. 2) There is a major leak on the northwest side of the building at this same juncture between the original building and the addition. This leak is probably due to a flashing problem where these parapets tie together. It is leaking into the corridor on the 3rd Floor and into the Chief's Office and the Training Room on the 2nd Floor. The roof was not cored as part of this survey, so the presence, condition and thickness of any roof insulation is unknown. Rainwater is removed through parapet scuppers and downspout.

### **INTERIOR CONSTRUCTION AND FINISHES**

The interior walls are a mix of plaster and concrete masonry. Some of the plaster is deteriorated – particularly in the location where the roof is leaking. Flooring is mostly resilient tile and carpet. The resilient tile is an area of concern mentioned in the Hazardous/Regulated Materials Report (see Appendix). Ceilings



*Uninsulated Steel Windows*



*Area of Major Leak*



*Ponding Water*

are a mixture of suspended acoustical lay-in tiles in metal grid and plaster applied to the concrete structural slabs. Doors are a mixture of hollow metal, solid core flush wood doors and doors with view lights, doors with louvers. Doors are generally painted except in the Courtroom and in the 1982 addition, where they are stained wood veneer.

### **STRUCTURAL**

The 1939 building appears to be a concrete framed structure with brick masonry exterior. The 1982 addition is steel framed with concrete floors on metal deck. The Structural Report (see Appendix) noted stepped cracking in the brick on some of the exterior corners of the building. These should be patched and monitored for worsening conditions. According to the report there do not appear to be any major structural concerns.

### **FIRE PROTECTION**

The Police Department Building is not sprinkled. If as part of a renovation an Assembly Occupancy is planned to remain on the upper floor, the building should be sprinkled. If the building is sprinkled, it will allow more flexibility in the fire rating of corridors, housing mixed occupancies, etc.

### **PLUMBING**

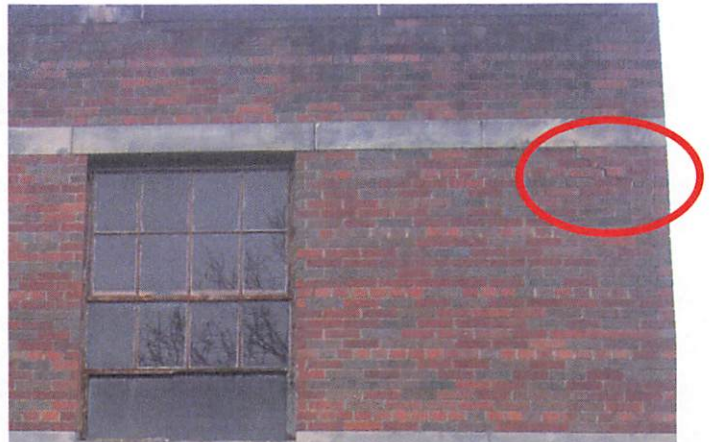
The plumbing in the original part of the Police Department Building is 80 years old and should be replaced if the building is renovated.

### **HVAC**

The original 1939 building was not air conditioned. Window units and free-standing central units have been added over the years. The central units do not meet Code. If the building is renovated a complete new system should be installed (See Appendix).

### **ELECTRICAL**

The Electrical Report (see Appendix) should be reviewed, and Code deficiencies in the electrical system should be corrected. The Electrical Report indicates that the electrical system is out-dated and there may not be parts available to repair panels, replace breakers, etc. The building appears to have multiple services, but that could not be verified. The



*Cracks in Masonry*



*Existing Plumbing*



*Diverse Mixture of Mechanical Systems*



building lacks electrical outlets and there are a number of plug strips in use which could be a fire hazard. The main electrical room has wiring conditions that are not Code compliant. Lighting is a mix of incandescent and older fluorescent fixtures and is not energy efficient. There is no lighting control system. There is no fire alarm system.

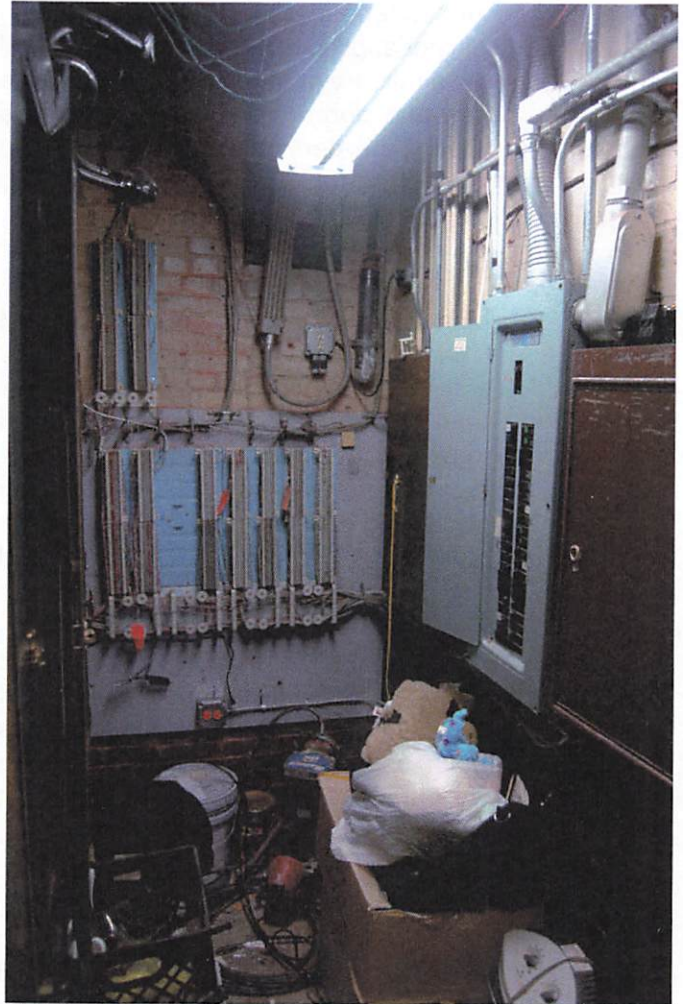
### **ELEVATOR**

The existing elevator machine and controls should be renovated to comply with the ASME A17.1 and ADA requirements to the maximum extent feasible. Call features and passenger communications should be upgraded for compliance.

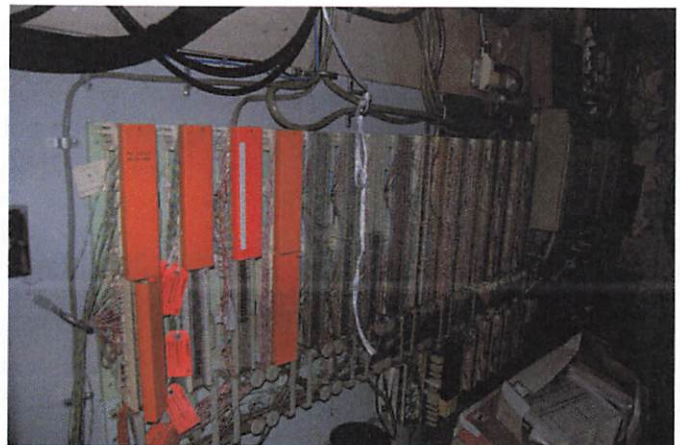
### **PROBABLE COST**

Based on the GLEEDS Estimate of Probable Cost (see Appendix), a budget of **\$3,000,000** (rounded) should be considered for a full renovation of the Police Department Building including abatement of hazardous/regulated materials. This amount should be adequate to bring the building up to current Code, into ADA compliance and provide new finishes throughout.

Alternatively, a budget of **\$194,000** (rounded) should be included if the building is to be demolished. This would include complete demolition and disposal of all building materials including required abatement of hazardous/regulated material. The site would be left smoothly graded and grassed. Utilities would be removed and capped at the property line or point of service.



*Existing Electrical Service*



*Existing Telephone/Low Voltage System*