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Knox County Armory
Mansfield Ave. & W. Curtis St.
Mount Vernon, Ohio 43050
Attn: Mr. Bruce Jacklin
Mrs. Janis Stone

September 30, 2008

RE: Proposed Mount Vernon Performing Arts Center at the Armory
Mount Vernon, OH. 43050

Shremshock Companies has prepared this preliminary study on behalf of the Performing Arts Center to assess the feasibility of adapting the existing Armory Building (located at the corner of Mansfield Ave. and Curtis Street in Mount Vernon, Ohio) for use as a performing arts center.

The study first identifies the physical deficiencies and code compliance issues of the existing building and, second, provides preliminary recommendations to remedy these issues and update the building to meet the required state building codes. If the project moves forward, further in-depth assessment and analysis will be required for Architectural as well as Structural and Mechanical elements.

Shremshock Companies has assessed the existing conditions of the building. Information gathered by the team is based upon visual conditions of exposed construction. The team cannot warrant whether buried and hidden conditions may require additional work not expressed within this preliminary study, and the opinions expressed in this study are based upon preliminary architectural judgment, not a final assessment.

The following report outlines the steps that we believe are necessary to renovate the MV Armory and create a Performing Arts Center.

SITE:

The Armory Building site is located at the corner of Mansfield Ave. and Curtis St., two minutes away from downtown.

The site is easily accessible by pedestrian and vehicular traffic. Pedestrian access is available via sidewalk along the front Mansfield Ave., Curtis Street; no sidewalk exists along Scott Street alley. Curtis Street provides curb-side parking; off-street parking is located in a paved lot accessed from Scott Street alley off the building's rear entrance. The parking lot is enclosed by a chain link fence. The site is essentially flat, but the terrain slopes the east. Stairs to both entrances, however, are barriers to accessibility.

Further study of the parking availability is recommended. The site is appropriate to support use as an arts center barring any restrictions discovered from this study and the

availability of adequate parking. Additional parking for events may be able to be negotiated with local businesses located directly to the east of the Armory site.

EXTERIOR SHELL

The County Auditor records show the building was erected in 1930 as an Armory for the National Guard. The style is consistent to the Deco movement of the 20's and 30's. The building retains a relative symmetry.

East and West Elevations

The east exterior wall (facing Mansfield Ave.) presents a brick and window facade. Stone accents are present in the building. The windows may be original to the building and consists of metal framed single-pane glazing set above a stone sill over brick. We recommend supplementing the glazing system with a new energy-efficient insulated glazing system. Two entrances at each side of the building serve as the main entrances to the building via steps up from the sidewalk. A flag pole is centered in the yard in front of the building

The west exterior wall, which connects to parking, is similar to the east wall but has only one entrance, which connects to the parking area via steps down and has less stone decorations. There is evidence of brick repair work at the top of the parapet and some structural damage in the corner of what use to be the inside lift (still remaining but non compliant and not usable for this application).

North and South Elevations

These elevations are similar in condition to the east and west elevations. Scott Street Alley (north) has a service door leading directly to the existing mechanical room.

The roof appears to have been replaced or renovated, with the addition of a membrane roof system. Evidence of significant interior water damage at the rear of the building was observed on ceilings and walls of the upper floors, continuing down to the floors below. The damage appears to have resulted from past and present leaks:

> Northwest Corner: Water damaged roof. Water has infiltrated the floor system causing evident damage.
>
> Northeast Corner: The roof at this area has many holes and the water has rotted the ceiling structure. Water damage to the roof. Water has infiltrated the floor system creating evident damage.
>
> South Mid-Building: It appears that there was some water damage in the past, which was corrected when the new roof membrane was applied to the building. The roof membrane will require closer inspection but, based upon current observations, it will need to be replaced completely.
>
> Southwest Corner: Water damage in roof. Water has infiltrated the floor system creating evident damage.
>
> Southeast Corner: Water damage in roof. Water has infiltrated the floor system creating evident damage

Several low spots on the roof were observed holding water, which will shorten the lifespan of the roof and floor systems. We recommend that the roofing installer and

manufacturer correct these issues under the current roof warranty. If no warranty exists, we recommend a roofing consultant or contractor make a thorough inspection of the roof.

The exterior brick has not been painted, however we recommend a cleaning and an application of brick sealer. The exterior walls are 12" thick but further insulation and a vapor barrier could be added to provide a more energy efficient building envelope.

INTERIOR

Ground Floor

The ground floor is accessed by a centrally located door at the parking entrance to the west; two main entrances at the Mansfield Ave. side to the east, and with one service door at Scott Street Alley to the north.

Exterior basement/foundation walls are constructed of concrete and brick masonry. Floor structure is a concrete slab on grade. A central corridor with two lines of masonry bearing walls, support the second floor framing above.

The basement is partitioned into utility spaces for the boiler, plumbing riser, and other old mechanical units; storage, offices, men's locker room, two restrooms, and a kitchen. The lower floor is not sprinklered, although there is fire hose cabinet.

Second Floor

The second floor is accessed from the ground floor via two stairwells, each in proximity to the two main entrances at the Mansfield Ave (East) side of the building. There is an old, non-compliant manual lift / dumbwaiter on the northwest side of the building. The roof structure is wood deck over metal trusses resting on exterior bearing walls.

The upper floor is open and was adapted for a basketball court, with a scoreboard on each side of the court. Window protection was provided for the basketball court and will have to be removed. The remainder of the floor is partitioned into storage areas, restroom, and a stage area accessed by stairs on the West side. The upper floor is not sprinklered, although there is fire hose cabinet.

The roof is accessed though a roof hatch at the northeast corner of the building in the stair vestibule; an elevator will be required for accessibility code compliance.

Engineering:

1. New AC system and ducts
2. Electrical installation to be replaced as necessary
3. Update mechanical equipment
4. Sprinkler system
5. Provide network connections
6. Remove heaters at new auditorium

PRELIMINARY BUILDING CODE ANALYSIS

1. Change of Use:
    a. The existing use is assumed Business
    b. Proposed use is Assembly (A-1)
    c. Code allows change of use of existing buildings without full code compliance as long as the new use is not of a greater risk to life safety. Some measures will have to be taken for this change to be accepted.
2. The change of use will require to bring the building up to current state building code:
    a. ADA accessibility:
        i. Access ramp
        ii. Elevator for upper floor
        iii. Provide enough restrooms per code
        iv. Handicap parking spaces
3. Confirm:
    a. Occupant load and egress width
    b. Stairways:
    c. Area of refuge:
4. Structural problems:
    a. Roof damage at north-east and south-west
    b. Wall damage at existing lift shaft
    c. Wood floor and floor system where water damage
    d. Replace roof membrane
5. Energy efficiency:
    a. Window replacement
    b. Geothermal system
6. Site improvements
    a. Landscaping / plating
    b. stairs refurbishing
    c. garden fence refurbishing / replacement
    d. signage
    e. Building sand blasting
    f. Site lighting
    g. Parking / access
    h. Access alley

Code Synopsis:

Site Data:

Zoning Classification: In zoning review process
Commercial is desired

Applicable codes: Building Code - 2007 Ohio Building Code
Plumbing Code - 2007 Ohio Plumbing Code
Electrical Code - NEC (Latest Edition)
Mechanical Code – 2007 Ohio Mechanical Code
Accessibility - ICC/ANSI A117.1 2004/ADAAG

Building Description: Construction Type: A-1
Use Group: III-B
Actual Area: 12,000 sq. ft.

Sprinkler Requirements: Section 903.2.1.1

Buildings of use group A-1 are required to be sprinklered if one of the following conditions occur:
Area is 12,000 square feet or more
Area holds 300 or more occupants
Area is on a level other than the exit discharge level
Build is multi theatre.
Since the assembly area is located on the second floor level a sprinkler system will be required.

Egress: Section 10

Calculated maximum travel distance is 250'. Actual maximum travel distance is approx. 135' (Table 1016.1)

Egress widths (Table 1005.1) Required width for stairs is 0.2 and all other widths are 0.15 in a fully sprinkled building. The existing stairs are 5'-8" wide and have a calculated egress capacity of 340 each for a total load of 680. The exterior doors are two pair of 3'-0" doors and have a calculated egress capacity of 454 at each exit.

Occupant loads are calculated per Table 1004.1.1 as follows:

Fixed Assembly Seating:	Number of Seats
Stage:	15 S.F. Net
Standing:	5 S.F. Net
Offices:	100 S.F Gross

The number of required exits per Table 1019.1 for a building with 1-500 occupants is two. There are three exits from the existing building.

Seating will require aisle widths of 36" min. where there is seating on both sides of the aisle and the aisle serves 50 or fewer seats. A clear distance of 12" between seats (front to back) is required. This distance shall be increased by 0.3" in rows over 14 seats with aisles at both ends and 0.6" in rows over 7 seats with aisles at one end. (Section 1025)

Accessibility: Section 11

An assembly area with 101 – 300 seats requires 5 wheelchair spaces. (Section 1108.2.2.1)

Fixture Requirements: Table 2902.1

Requirements for fixtures are as follows:

Water Closets:
- Male: 1 per 125 (not more than 67% urinals)
- Female: 1 per 65

Lavatories:
- Male: 1 per 200
- Female: 1 per 200

Drinking fountains: 1 per 500

Service Sink: 1

Standpipe: Section 905.3.4

Stages over 1,000 S.F. shall be equipped with a Class III standpipe with a hose connection of 1½" diameter at each side of the stage. (sprinklered building)

We can avoid this by keeping the stage below 1,000 S.F

ASSESSMENT AND FEASIBILITY SUMMARY:

Our preliminary conclusions regarding the site: Because of the age of the building and the lack of information about the condition of the electric and plumbing systems, these systems need to be replaced. In addition, there are the obvious needs such as providing the building with Air Condition (units and ducts). Roof damage at the northeast and southwest; potential roof and floor deck structural damage; many other issues such as piping, plumbing, fire protection modifications, ventilation, cooling, and heating improvements, need addressed to insure the buildings' functional condition and safety .

Code compliance for the new Arts Center will require the building to be upgraded. If the change in use is to be approved, several major improvements will be needed, including: an accessible ramp, upgrade access to and number of restrooms, an elevator, and a sprinkler system.

Once these issues have been addressed, the potential change is feasible. However, it will require stripping the building's interior down to its structure. This might initially represent a bigger investment but it will be a better use of resources overtime, ensuring quality of work and efficiency in construction. This investment will result in a well-designed structure through efficient materials, construction procedures, and installations. Additionally, hidden problems will be far less likely to occur and cause problems during construction and in the future.

I hope that the information contained within this report assists you in making a decision. If you need answers to any specific questions, please call our office immediately.

Regards Always,

Scott Shremshock

Shremshock Architects, Inc.