



CITY OF FRANKLIN, NEW HAMPSHIRE
Fire Department
"The Three Rivers City"

59 West Bow Street • 03235

Tel : (603) 934-2205
FAX: (603) 934-7408

Michael J Foss, Fire Chief/EMD

David J Hall, Deputy Chief

February 1st, 2022

Franklin City Hall
316 Central Street
Franklin, NH 03235

Dear Manager Milner,

I am writing as a follow-up to our conversation regarding the May 18th, 2021 fire protection and life safety code review of Franklin City Hall. This was conducted after our discussion where I vocalized my concern with the current condition of the building, specifically as it relates to its use for gatherings, events, and generalized assembly purposes. I believe that the results of the study conducted by JS Consulting LLC will support my concerns, and further help to provide us direction as to how we should rectify any and all fire-related hazards.

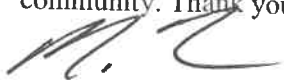
Though most identified hazards were created prior to your administration, the generalized risks still remain. Chiefs Navaroli, Beauchemin, Clarenbach, LaChapelle, along with Inspector Bodein have all reiterated their concerns to previous City Managers as well. In a letter dated August 6th, 1996, Retired Chief Clarenbach wrote the following to City Manager Jim Pitts in regards to the necessity of a sprinkler system to protect the building. Chief Clarenbach wrote, "By installing sprinklers it would not only satisfy the intent of the code but would also protect this valuable landmark in time of fire." I wholeheartedly agree with this assessment and echo his recognition of this challenge.

As a result of layout modifications, code changes, and other contributing factors, having a newly conducted Fire Protection study was in the best interest of the City of Franklin and those who occupy this structure. Further, after reading through other various correspondence regarding City Hall's condition it has become all the more apparent that an Occupancy and Assembly permit is necessary. This building is utilized to accommodate large crowds, employees, and members of the general public for various events

and meetings. The City of Franklin would continue to be negligent without properly addressing all the fire and life safety concerns outlined in JS Consulting's report. It is my recommendation that we work together in conjunction with the Municipal Services Director to address JS Consulting's concerns. The major areas identified as needing attention are as follows:

- *The building needs to be fully sprinklered to maintain its current use. Further, this would assist in obtaining of an assembly and occupancy permit.*
- *Separation of "Stair 1" and "Stair 3" would help to prevent fire spread throughout the structure in the event of an emergency.*
- *The unprotected penetrations through the building (in-between floors) need to be addressed where appropriate.*
- *An additional means of egress needs to be incorporated for use when GAR Hall is being utilized.*
- *Panic hardware needs to be installed as identified in the report dated May 18th, 2021.*
- *Proper handrails need to be installed when using the theater-type seating.*
- *Exit signage must be visible and properly labeled in all egress portions of the building.*
- *Additional fire extinguishers need to be installed where deficiencies are noted.*
- *Fire alarm system notification must be incorporated into the attic space.*
- *Storage of combustible supplies must only be housed in proper and approved locations.*
- *The stage area exceeds 1,000 ft². Therefore, the installation of an approved ventilation system and extinguishment hose lines are necessary to continue with its current use.*
- *All pending electrical wiring replacement needs to be completed. All extension cord used as a replacement to permanent wiring must cease, and all knob-and-tube wiring needs to be inspected and replaced as indicated after review by a qualified electrician. It would benefit the city to have an electrical engineer or licensed electrician provide a plan to correct all electrical hazards.*

To help provide greater detail of the aforementioned items, I have attached the detailed report provided by JS Consulting Engineers, LLC. I am confident that we can address these issues together with the help of the City Council, Municipal Services Director, and members of your leadership team. I look forward to discussing these hazards with you and proposing a solution so that City Hall can continue to benefit our community. Thank you for your consideration.



Michael Foss

Fire Chief/EMD

cc: Justin Hanscom, MSD Director

enclosure



**City Hall
316 Central Street, Franklin, NH
Fire Protection & Life Safety
Existing Conditions Assessment Report**

May 18, 2021

Office: 603.327.8650
Web: www.jsfirecode.com
224 Main Street | Suite 2C
Salem, NH 03079

1 BACKGROUND

JS Consulting Engineers, PLLC (JSCE) has prepared this existing building conditions assessment report for the building located at 316 Central Street in Franklin, New Hampshire. The purpose of this assessment is to visually examine the existing fire protection, life safety and accessibility features provided in the building in order to determine the general overall condition of the building and to identify observable fire protection, life safety and accessibility code deficiencies.

Note that JSCE's scope of work did not include review of existing mechanical, electrical, plumbing or structural systems or energy performance / efficiency. This Report is based on the site visit performed by Sean M. Donnelly, P.E. on April 8, 2021 and the requirements of the applicable codes and standards identified below.

The site visit included a visual observation of the general layout of the building. No system testing or destructive or intrusive inspections were conducted by JSCE. The objective of this review is to determine the general condition of the building. Where specific deficiencies are noted, the list is in no way comprehensive and should be considered cursory in nature.

1.1 EXISTING BUILDING DESCRIPTION

The building is a multi-purpose building owned and operated by the City of Franklin, NH. The building includes the city administrative offices (Group B, Business), multi-purpose meeting space (Group A-3, Assembly) and a theater space used by the community (Group A-1, Assembly). The building is an existing 3-story mixed-use occupancy with an unoccupied attic space. The total area of the building is approximately 13,002 square feet. The existing building is not equipped with an automatic sprinkler system; however, it is equipped with an automatic fire alarm and detection system.

2 APPLICABLE CODES AND STANDARDS

- **Accessibility** – 2010 Americans with Disabilities Act Standards (ADAS), ICC A117.1 as adopted by the NHBC Chapter 11.
- **Building** – New Hampshire State Building Code (NHBC) which is an amended version of the 2015 International Building Code
- **Existing Building** – New Hampshire Existing State Building Code (NHEBC) which is an amended version of the 2015 International Existing Building Code and the existing building provisions of Saf-C 6000.
- **Fire Safety** – Saf-C 6000 which is an amended version of NFPA 101, *The Life Safety Code*, 2015 Edition (LSC) and NFPA 1, *The National Fire Code*, 2015 Edition (NFPA 1)
- **Other** – Additional Select National Fire Protection Association (NFPA) Standards as referenced by NHBC and Saf-C 6000

3 CODE COMPLIANCE APPROACH

It is JSCE's understanding that the building has not undergone any recent renovations and that there are no planned renovations at this time. Based on this information, the existing building is required to comply with the requirements of the New Hampshire State Fire Code Saf-C 6000 for existing assembly and business occupancies. The requirements of Saf-C 6000 establish a minimum level of fire and life safety for existing buildings. This Report describes the proposed code compliance approach relative to fire protection, life safety and accessibility.

3.1 OCCUPANCY CLASSIFICATION

The building is currently utilized as office space for Franklin City Hall with several spaces dedicated to assembly use including a 2-story theater space.

The building is classified as a non-separated mixed-use with Group A-1 and A-3 (Assembly) and Group B (Business) occupancies.

3.2 EXISTING BUILDING CONSTRUCTION

The building is 3-stories in height; referred to in this Report as the 1st Floor, 2nd Floor and 3rd Floor. The building is provided with an attic space that is utilized only for storage and is not accessible to the general public. The total area of the building is approximately 13,002 square feet.

The existing 3-story building is constructed of various non-combustible and combustible materials including brick exterior and wood interior. Based on the mixed construction, it is assumed the building's construction most nearly resembles Type V(000).

Since there is no current work proposed for the building; review of the existing building construction relative to its use, height and area under the requirements of the NHBC is not required¹.

The location of an Assembly Use space in an existing building is regulated by the LSC based on the existing construction type of the building and whether the building is fully sprinklered (LSC Table 13.1.6). The LSC does not regulate the construction of an existing Business occupancy. In accordance with LSC Table 13.1.6 Assembly occupancies are only permitted to be located on the 1st Floor in an existing nonsprinklered Type V(000) building. If the building were fully sprinklered; LSC Table 13.1.6 would permit Assembly occupancy use on the 2nd Floor. However, use of the 3rd Floor for spaces classified as an Assembly occupancy is prohibited by the LSC.

As such, even where no new work is proposed for the building; the building is required to be fully sprinklered to continue its use as an Assembly occupancy on the 2nd Floor. Additionally, rooms or spaces classified as an Assembly Occupancy are not permitted on the 3rd Floor; therefore, approval for the use of the upper-level theater seating is required.

3.2.1 VERTICAL OPENINGS

The following describes the stairs serving each floor of the building.

1st Floor

- **Stair 1** – An unenclosed stair which connects the office area of the 1st Floor to the 2nd Floor.
- **Stair 2** – An enclosed stair which connects the back of house area to the stage/theater on the 2nd Floor.

2nd Floor

- **Stair 3** – An unenclosed stair which connects the main lobby of the 2nd Floor to the 3rd Floor
- **Stairs 4 & 5** – Two additional unenclosed stairs are located within the theater area; however, these stairs are no longer in use.

3rd Floor

- **Stair 3** – An unenclosed stair which connects the main lobby of the 2nd Floor to the 3rd Floor

Attic

- **Stair 6** – An enclosed access stair which discharges at the top of Stair 3 on the 3rd Floor.

Assembly occupancies protected throughout with an approved automatic sprinkler system are permitted to have unprotected vertical openings (e.g. stairs) between any two adjacent floors provided that such openings are separated from other unprotected openings (LSC §13.3.1)².

Stair 1 and Stair 3 are considered to be non-separated open stairs. In order to properly enclose Stair 1 and Stair 3 and separate these stairs from one another, a new self-closing and latching 1-hour fire resistance rated door assembly should be installed to enclose Stair 3 on the 2nd Floor.

The existing stairs were observed to meet the dimensional criteria prescribed by LSC §7.2.2.2.1.1(b) for existing egress stairs.

¹ Per the NHBC a nonsprinklered Type VB (Type V(000)) building classified as a Group A-1 occupancy is limited to a maximum height of 1-story (40-feet) and a maximum area of 5,500 square feet not including any allowable increase in area due to open building frontage.

² Unprotected vertical openings between any two adjacent floors are not permitted in nonsprinklered buildings.

Additionally, every floor that separates stories in a building is required to be constructed as a smoke barrier. (LSC §8.6.1).

JSCE observed several unprotected penetrations, or holes between floors throughout the building. These holes and penetrations should be addressed as part of maintaining the building to the minimum requirements of the LSC and Saf-C 6000.

3.3 INTERIOR FINISHES

Existing interior finishes in the building are required to meet the existing construction requirements of the LSC §13.3.3 and §39.3.3. The table below summarizes the interior finish ratings required in existing Assembly and Business occupancies, with an occupant load greater than 300-people, where the building is not protected by an automatic sprinkler system (LSC Table A.10.2.2).

Table 1. Interior Finish Ratings – Nonsprinklered Building

Use Group	Exits	Exit Access Corridors	Other Rooms and Enclosed Spaces
A	Class A	Class A or B	Class A or B
B	Class A or B	Class A or B	Class A, B or C

More information is needed in order to verify if the interior wood finishes and acoustical ceiling tiles provide a Class A or B flame spread rating.

3.4 MEANS OF EGRESS

The following describes the means of egress serving each floor the building. Due to the sloping site, there is access to the exterior at grade level on the 1st and 2nd Floors. However, the level of exit discharge is identified as the 2nd Floor.

1st Floor

- **Exit A** – Single leaf exit door to the exterior at the rear parking lot.
- **Exit B** – Single leaf exit door to the exterior at Memorial Street.
- **Stair 1** – Unenclosed exit access stair with access to Exit D on the 2nd Floor.

2nd Floor

- **Exit C** – Double leaf exit door to the exterior at Central Street.
- **Exit D** – Single leaf exit door to the exterior at Memorial Street.
- **Exit E / Fire Escape** – An exterior fire escape stair, accessed from a single leaf exit door on the 2nd Floor near the stage, discharging to the rear parking lot.

3rd Floor

- **Stair 3** – Unenclosed exit access stair with access to Exit C on the 2nd Floor.
- **Exit F / Fire Escape** – An exterior fire escape stair, accessed from a single leaf exit door on the 3rd Floor balcony of the Theater, discharging to the rear parking lot.

Attic

- **Stair 6** – An enclosed exit access stair with access to Stair 3 on the 3rd Floor.

3.4.1 Number of Means of Egress

Each floor of the building is required to be served by two (2) remotely located building exits (LSC §7.4.1 and §13.2.4.1)³.

³ The attic appears to be primarily utilized for the storage of miscellaneous combustible materials. A single means of egress is permitted from any floor provided that the materials stored are consistent with ordinary hazard contents and that the maximum travel distance to the exit does not exceed 100-feet (LSC §42.2.4.1(2)). The materials stored in the attic appear to be consistent with the definition of ordinary hazard contents (LSC §6.2.2.3). The maximum travel distance does not appear to exceed 100-feet.

All floors and spaces in the building are provided with two (2) exits, where required, with the exception of Gar Hall on the 3rd Floor. The second exit serving the 3rd Floor is Exit F, the fire escape, accessed from within the theater space. Access to a required exit through an unrelated room or space is not permitted. Per the AHJ, the occupant load of Gar Hall is to be maintained at 49 or less.

3.4.2 Doors

In an Assembly occupancy, doors serving rooms and spaces with a capacity of 100-people or more are required to be equipped with panic hardware (LSC §13.2.2.2.3).

The following doors were not observed to be equipped with panic hardware:

1st Floor

- Exit A
- Exit B

2nd Floor

- The main entry/exit door serving the theater

3rd Floor

- The main entry/exit door serving the theater

3.4.3 Occupant Load and Exit Capacity

The exit capacity for the means of egress elements should be based on the following factors (LSC §7.3.3.1):

Table 2. Egress Capacity Factors

Egress Element	Egress Capacity
Stairs	0.3 inches per person
Doors, Ramps, Exit Passageways, Corridors	0.2 inches per person

Based on the proposed uses of the building, the following occupant load factors are applicable (LSC Table 7.3.1.2):

Table 3. Occupant Load Factors

Egress Element	Egress Capacity
Accessory Storage Areas, Mechanical Equipment Room	300 sf/pp
Assembly Areas – Table and Chair Seating, Meeting Rooms, Stage	15 nsf/pp
Assembly Areas – Seating in Rows	7 nsf/pp
Assembly – Fixed Seating	Seat Count
Business Areas	100 sf/pp
Dressing Room	50 sf/pp

The tables below summarize the estimated occupant load of the building. The occupant loads shown in these tables is based on information provided to JSCE by the City of Franklin. These are not accurate calculated egress occupant loads; they more closely represent program loads based on various potential seating arrangements expected to be utilized in the building.

Table 4. 1st Floor Egress Occupant Load

1 st Floor			
Room / Space	Gross Area (sf)	Occupant Load Factor (sf/pp)	Egress Occupant Load (pp)
Theater Back of House Area	Unknown	Posted	90
Meeting Room	921 sf	15	62
Office	Unknown	100 ⁴	3
Total			155

Table 5. 2nd Floor Egress Occupant Load

2 nd Floor			
Room / Space	Gross Area	Occupant Load Factor	Egress Occupant Load
City Clerk / Tax Collector Office	Unknown	100 ⁴	3
City Manager's Office	Unknown	100 ⁵	2
Meeting Room	434 sf	15	29
Stage	Unknown	Posted	90
Theater	Unknown	Fixed	125
Welfare Director's Office	Unknown	100 ⁶	1
Total			250

Table 6. 3rd Floor Egress Occupant Load

3 rd Floor			
Room / Space	Gross Area	Occupant Load Factor	Egress Occupant Load
Gar Hall	1,052 sf	15	71
Meeting Room	303 sf	15	21
Theater	Unknown	Fixed	169
Total			261

The Tables below summarize the available exit capacity calculated for each floor of the building.

There is sufficient exit capacity serving each floor to accommodate the egress occupant load of each floor as represented in the Tables above.

⁴ The actual area of the office space could not be calculated; however, there are three (3) workstations within the space.

⁵ The actual area of the office space could not be calculated; however, there are two (2) workstations within the space.

⁶ The actual area of the office space could not be calculated; however, there is one (1) workstation within the space.

Table 7. 1st Floor Exit Capacity

1 st Floor				
Exit	Door Clear Width	Ramp / Stair Clear Width	Limiting Egress Element	Exit Capacity (pp)
Exit A	34 inches	82 inches	Door	170
Exit B	34 inches	75 inches	Door	170
Exit D / Stair 1	40 inches	77 inches	Door	200
Total				540

Table 8. 2nd Floor Exit Capacity

2 nd Floor				
Exit	Door Clear Width	Ramp / Stair Clear Width	Limiting Egress Element	Exit Capacity
Exit C	56 inches	N/A	Door	280
Exit D / Stair 1	40 inches	77 inches	Door	200
Exit E / Fire Escape	34 inches	51 inches	Door	170
Total				650

Table 9. 3rd Floor Exit Capacity

3 rd Floor				
Exit	Door Clear Width	Ramp / Stair Clear Width	Limiting Egress Element	Exit Capacity
Stair 3	N/A	77 inches	Stair	257
Exit F / Fire Escape	34 inches	51 inches	Door	170
Total				427

3.4.4 Theater-Type Seating (Balcony)

The exit capacity for the means of egress elements for theater-type seating should be based on the following factors (LSC Table 13.2.3.2):

Table 10. Egress Capacity Factors – Theater-Type Seating

Egress Element	Required Egress Capacity	
Stairs	0.3 AB ⁷	0.45 inches per person
Doors, Ramps, Exit Passageways, Corridors	0.22 C ⁸	0.242 inches per person

Each stair in the theater seating provides an exit capacity of 80 people. The maximum calculated occupant load for any one aisle is 67 people. Each aisleway through the theater provides an exit capacity of 136 people. The maximum occupant load of any one aisleway leading to an exit is calculated to be 85 people⁹. There is sufficient exit capacity serving the theater-type seating on the balcony.

Handrails are required in aisle stairs serving seating not at tables, unless the risers do not exceed 7-inches in height.

The aisle stairs serving the theater-type seating are not equipped with handrails and were observed to have a riser height of 8-inches.

⁷ A = 1.2; B = 1.25 (LSC §13.2.3.3(1) and §13.2.3.3(3)).

⁸ C = 1.10 (LSC §13.2.3.3(4)).

⁹ One-half of the total occupant load of 169.

3.4.5 Arrangement of Means of Egress

The following table summarizes some of the major means of egress criteria prescribed by LSC:

Table 11. Means of Egress

Means of Egress Element	Prescriptive Code Requirement
Travel Distance	200-feet
Common Path of Travel	20-feet
Maximum Dead-End Distance	20-feet
Minimum Headroom Height	7-feet (Existing Buildings)
Minimum Door Clear Width	32-inches ¹⁰
Minimum Corridor Width	44-inches ¹⁰
Minimum Width Accessible Route	36-inches ¹⁰

Unless previously noted, occupants of the building have access to a minimum of two (2) exits without excessive travel to an exit or travel via an excessive common path. Excessive dead-ends were not observed. All doors, corridors and accessible routes appear to comply with the required means of egress criteria outlined above with the exception of the door from the attic which was observed to be 28-inches.

3.4.6 Exit Signs and Means of Egress Lighting

Exit signage should be provided throughout the building in accordance with LSC §7.10 along all paths of egress travel and from any room or space requiring two (2) or more means of egress (LSC §13.2.10). Normal and emergency means of egress lighting is required to illuminate the egress paths and exits. Exterior lighting to illuminate the points of exit discharge and path of travel to the public way is also required.

The following areas were not provided with exit signs or emergency means of egress lighting.

- **Exit Signs**
 - 1st Floor – corridor to Exit B
 - 1st Floor – lounge area
 - 2nd Floor – Exit C
 - 2nd Floor – meeting room
 - 3rd Floor – meeting room
- **Emergency Means of Egress Lighting**
 - 1st Floor – break room
 - 1st Floor – women’s dressing room
 - 2nd Floor – meeting room
 - 3rd Floor – meeting room

3.5 FIRE PROTECTION

3.5.1 Automatic Sprinkler System

The existing building is not protected by an automatic sprinkler system. To allow for the continued use of the 2nd Floor as Assembly occupancies, the entire building is required to be sprinklered (LSC Table 13.1.6).

Based on the existing construction type of the building and the use of the 2nd Floor, the existing building is not permitted to remain unsprinklered. The building is required to be protected by an automatic sprinkler system throughout installed in accordance with the NHBC, Saf-C 6000, and NFPA 13.

¹⁰ Not less than the width required to serve the occupant load. Refer to the exit capacity and occupant load tables in this Report.

3.5.2 Fire Extinguishers

Portable fire extinguishers are required to be located throughout the building in accordance with NFPA 1 §1-13.6, and NFPA 10.

Portable fire extinguishers were observed in the existing building and appear to be located throughout the building with the exception of the following spaces on the 3rd Floor balcony seating area. It is recommended that additional extinguishers be installed within the balcony seating area.

3.5.3 Fire Alarm and Detection System

Existing assembly occupancies with an occupant load of 300-people or more are required to be equipped with a fire alarm system per LSC §13.3.4.1.1.

Based on the estimated egress occupant load, which exceeds 300-people, the building is required to be equipped with a fire alarm and detection system. The existing building is equipped with a fire alarm and detection system which includes area smoke detection and occupant notification. It was noted that notification appliances were not installed in the attic.

3.5.4 Protection from Hazards and Combustible Storage

The following rooms or spaces are required to be separated from the remainder of the building by fire barriers having a minimum 1-hour fire resistance rating when the room or space is not protected by an automatic extinguishing system.

- Boiler and furnace rooms, unless the equipment has an input rating less than 200,000 Btu and the room is not used for storage
- Rooms or spaces used for the storage of combustible supplies in quantities deemed hazardous by the Authority Having Jurisdiction

There are several rooms and spaces within the building dedicated for the storage of combustible materials. These rooms or spaces are required to meet the following (NFPA 1 §10.18):

- Storage is required to be maintained 2-feet or more from the ceiling in unsprinklered buildings
- Combustible materials are not permitted to be stored in exits
- Combustible materials are not permitted in boiler rooms, mechanical rooms or electrical rooms unless the materials stored are used for the operation and maintenance of the equipment located in the room

Attics used for storage of combustible materials are required to be protected by one of the following means (LSC §8.7.1.1):

- The area shall be enclosed by a fire barrier with a 1-hour fire resistance rating
- The area shall be protected by an automatic sprinkler system

It was noted that the attic was used for the storage of combustible supplies. Additionally, combustible materials are stored in the room located near the boiler room, in the dressing rooms and in the corridor leading to Exit A on the 1st Floor.

Per the AHJ, combustible materials are required to be removed from the attic and the 1st Floor corridor. The materials located in the boiler room are considered acceptable to remain as is. The combustible materials located in the storage room near the boiler room and the dressing rooms are to be reduced and minimized per the AHJ.

3.6 ACCESSIBILITY

The original construction of the building pre-dates the ADA Standards (circa 1992). However, any new work or renovations performed since the early 1990's in the building should have complied with the applicable state and federal accessibility standards at the time of design and construction.

In addition, per 28 CFR §36.304 under Title III of the ADA, the accessibility features of the building should be on a program to continually improve the level of accessibility in the building to the extent such work is "readily achievable". JSCE recommends that, at a minimum, the following accessible features should be provided in the building, if not currently provided or not currently fully accessible:

- At least one (1) accessible building entrance connected to an accessible route from the public way (e.g., parking lot, sidewalk, etc.)
- An accessible route through each level of the building. This should include not less than 32-inches of clear width through doorways along the circulation route, accessible room signage, and accessible fire alarm notification appliances.
- At least one (1) accessible bathroom

3.6.1 Accessible Building Entrance / Accessible Route

Per ADAS §202.4, §203.9 and §206.1 the building is required to be served by an accessible building entrance and an accessible route through the building. It appears that there is an accessible route throughout the 1st and 2nd Floors. The 2nd Floor is provided with an accessible entrance from Memorial Street.

The building is not equipped with an elevator; however, a platform lift is provided for access between the 1st and 2nd Floors. The platform lift also provides access to the accessible building entrance. An operational plan for all seasons should be developed to allow patrons to travel between floors. Consideration should also be given to providing access to the 3rd Floor. Minimally all public uses of the 3rd Floor should also be offered in kind on the 1st or 2nd Floor.

3.6.2 Accessible Bathrooms

Per ADAS §202.4, the building is required to be served by an accessible bathroom. There is an accessible men's bathroom located on the 1st Floor and an accessible women's bathroom located on the 2nd Floor. Since there is no elevator to provide an accessible route between floors; each bathroom on each floor is required to have an accessible toilet and sink provided in accordance with NHBC §1109.2, ICC/ANSI A117.1 and ADAS §603.0, §604.0 and §606.0.

4 STAGES AND PLATFORMS

4.1.1 Ventilation and Smoke Control

Regular stages in excess of 1,000 ft² are required to be provided with emergency ventilation to provide a means of removing smoke and combustion gases directly to the outside in the event of a fire. The ventilation can be achieved by a smoke control system, roof vents or other approved alternate means of removing smoke and combustion gases.

A regular stage is defined as a stage with a height of 50 ft or less measured from the lowest point on the stage floor to the highest point of the roof or floor deck above. The stage provided in the theater is considered to be a regular stage.

It does not appear that the stage is equipped with means for emergency ventilation. The stage area exceeds 1,000 ft² (approximately 1,116 ft²); stage ventilation is required.

4.1.2 Fire Protection Systems

Every stage is required to be protected by an automatic sprinkler system providing protection throughout the stage and in storerooms, workshops, permanent dressing rooms and other spaces considered to be accessory to the stage.

Based on the presence of the stage and the spaces on the 1st Floor considered to be accessory to the stage, the existing building is not permitted to remain unsprinklered. The building is required to be protected by an automatic sprinkler system throughout installed in accordance with Saf-C 6000 and NFPA 13.

Stages over 1,000 ft² are required to be equipped with 1½" hose lines on each side of the stage. **The stage area exceeds 1,000 ft²; 1½" hose lines are required.**

4.1.3 Flame-Retardant Requirements

Cloth, film or dry vegetation scenery is required to meet one of the following (LSC §13.4.6.11.1):

- The flame propagation performance criteria contained in Test Method 1 or Test Method 2, as appropriate, of NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.
- Exhibit a heat release rate not exceeding 100 kW when tested in accordance with NFPA 289, Standard Method of Fire Test for Individual Fuel Packages, using the 20 kW ignition source.

Foamed plastics are permitted to be used if they exhibit a heat release rate not exceeding 100 kW when tested in accordance with NFPA 289, Standard Method of Fire Test for Individual Fuel Packages, using the 20 kW ignition source or by specific approval of the authority having jurisdiction.

Scenery located on the stage, that is not separated from the audience by the proscenium opening, is required to be of noncombustible materials, limited-combustible materials, or fire-retardant-treated wood (LSC §13.4.6.11.3).

It should be confirmed that the materials used on the stage meet the requirements listed above.

5 ELECTRICAL FIRE SAFETY

Wiring that is no longer in use is required to be identified or removed from all accessible areas and insulated from contact with other live electrical wiring or devices (NFPA 1 §11.1.2.3).

Multiplug extension cords, cube adapters, strip plugs or other devices are required to be listed and used in accordance with their listing (NFPA 1 §11.1.3). Extension cords are required to be plugged directly into an approved receptacle, power tap or multiplug adapter and shall serve only one portable appliance unless approved multiplug extensions cords are used (NFPA 1 §11.1.5.1). Extension cords are required to be maintained in good condition without splices, deterioration or damage and shall be grounded if servicing grounded portable appliances (NFPA 1 §11.1.5.3 and §11.1.5.4). Extension cords shall not be affixed to structures, extend through walls, ceiling or floors or under doors or floor coverings.

Existing electrical wiring, fixtures, appliances and equipment is permitted to be maintained in accordance with the edition of NFPA 70, *National Electrical Code*, in effect at the time of installation unless determined to present an imminent danger. JSCE noted that exposed knob-and-tube wiring was installed throughout the building, specifically in the attic where loose insulation is present. JSCE is not able confirm the date of installation of the knob-and-tube wiring. It should be noted that under the current edition of NFPA 70 knob-and-tube wiring is only permitted when concealed. Additionally, concealed knob-and-tube wiring is not permitted to be installed in the following locations:

- Theaters
- Hollow spaces of walls, ceilings and attics where such spaces are insulated by loose, rolled, or foamed-in-place insulation materials that envelop the conductors

It is recommended that a full review of the electrical service in the building be conducted by a licensed electrician or electrical engineer.

6 SUMMARY

The following major fire protection and life safety issues were identified as part of this review:

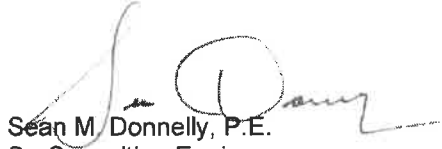
- Even where no new work is proposed for the building; the building is required to be fully sprinklered to continue its use as an Assembly occupancy on the 2nd Floor. Additionally, rooms or spaces classified as an Assembly Occupancy are not permitted on the 3rd Floor; therefore, approval for the use of the upper-level theater seating is required.
- Stair 1 and Stair 3 are considered to be non-separated open stairs. In order to properly enclose Stair 1 and Stair 3 and separate these stairs from one another, a new self-closing and latching 1-hour fire resistance rated door assembly should be installed to enclose Stair 3 on the 2nd Floor.
- Several unprotected penetrations, or holes between floors were observed throughout the building. These holes and penetrations should be addressed as part of maintaining the building to the minimum requirements of the LSC and Saf-C 6000.
- All floors and spaces in the building are provided with two (2) exits with the exception of Gar Hall on the 3rd Floor. The second exit serving the 3rd Floor is Exit F, the fire escape, accessed from within the theater space. Access to a required exit through an unrelated room or space is not permitted. Per the AHJ, the occupant load of Gar Hall is to be maintained at 49 or less.

- The following doors were not observed to be equipped with panic hardware:
 - 1st Floor
 - Exit A
 - Exit B
 - 2nd Floor
 - The main entry/exit door serving the theater
 - 3rd Floor
 - The main entry/exit door serving the theater
- The aisle stairs serving the theater-type seating are not equipped with handrails and were observed to have a riser height of 8-inches.
- The door from the attic which was observed to be 28-inches.
- The following areas were not provided with exit signs or emergency means of egress lighting.
 - Exit Signs
 - 1st Floor – corridor to Exit B
 - 1st Floor – lounge area
 - 2nd Floor – Exit C
 - 2nd Floor – meeting room
 - 3rd Floor – meeting room
 - Emergency Means of Egress Lighting
 - 1st Floor – break room
 - 1st Floor – women's dressing room
 - 2nd Floor – meeting room
 - 3rd Floor – meeting room
- Portable fire extinguishers were observed in the existing building and appear to be located throughout the building with the exception of the following spaces on the 3rd Floor balcony seating area.
- It was noted that notification appliances were not installed in the attic.
- It was noted that the attic was used for the storage of combustible supplies. Additionally, combustible materials are stored in the room located near the boiler room, in the dressing rooms and in the corridor leading to Exit A on the 1st Floor. Per the AHJ, combustible materials are required to be removed from the attic and the 1st Floor corridor. The materials located in the boiler room are considered acceptable to remain as is. The combustible materials located in the storage room near the boiler room and the dressing rooms are to be reduced and minimized per the AHJ.
- The stage area exceeds 1,000 ft²; therefore, the 1½" hose lines on each side of the stage and stage ventilation are required.
- It is recommended that a full review of the electrical service in the building be conducted by a licensed electrician or electrical engineer in order to review the presence of electrical wiring no longer in use, the use of extensions chords and existing knob-and-tube wiring.

If there are any questions regarding the issues identified in this Report or other areas of the building; please contact Sean Donnelly at 603-327-8650 or by email at s.donnelly@jsfirecode.com.

Prepared by:

JS CONSULTING ENGINEERS, PLLC



Sean M. Donnelly, P.E.
Sr. Consulting Engineer

*****END OF REPORT*****

