TOEPFER ARCHITECTURE, PLLC

Existing Building Statistics
Basement Floor Area: 2,655 SF
Occupant Load (Basement): 13
2,655 SF / 200 SF = 13.25
Building is Sprinklered
Assumed Building Construction Type: VB (IBC Chapter 6)

2018 International Existing Building Code (IEBC)

Chapter 3 – Accessibility for Existing Buildings

Section 305 – Accessibility for Existing Buildings

305.1 Scope.
The provisions of Sections 305.1 through 305.9 apply to maintenance, change of occupancy, additions and alterations to existing buildings, including those identified as historic buildings.

305.4 Change of Occupancy.
Existing buildings that undergo a change of group or occupancy shall comply with this section.
Exception:
1. Type B dwelling or sleeping units required by Section 1107 of the International Building Code are not required to be provided in existing buildings and facilities undergoing a change of occupancy in conjunction with alterations where the work area is 50 percent or less of the aggregate area of the building.

305.4.1 Partial Change of Occupancy.
Where a portion of the building is changed to a new occupancy classification, any alterations shall comply with Sections 305.6, 305.7 and 305.8.

305.7 Alterations affecting an area containing a primary function.
Where an alteration affects the accessibility to, or contains an area of primary function, the route to the primary function area shall be accessible. The accessible route to the primary function area shall include toilet facilities and drinking fountains serving the area of primary function.
Exceptions:
5. This provision does not apply to altered areas limited to Type B dwelling and sleeping units.

   (Per Code Commentary) Where the alterations result in Type B dwelling units being provided where none previously existed, Exception 5 would obviate the need for any additional money to be spent toward providing an accessible route to those Type B dwelling or sleeping units. This is intended to encourage the creation of such units without penalizing building owners., Similar to Section 305.4.2, this exception is intended to address the concerns of site impracticality for providing accessible routes to and into existing buildings providing Type B dwelling units.

   (Per Code Commentary) This also reinforces the intent that the inclusion of Type B units is not meant to require elevators when alterations are performed on upper *(in this case, lower)* floors in nonelevator buildings. These areas would have been exempted if built new under the FHA and IBC and should continue to be exempted.

Chapter 6 – Classification of Work

Section 603 – Alteration-Level 2

603.1 Scope
Level 2 alterations include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any stem, or the installation of any additional equipment.

603.2 Application
Level 2 alterations shall comply with the provisions of Chapter 7 for level 1 alterations as well as the provisions of Chapter 8.

Section 605 – Change of Occupancy

605.1 Scope
Change of occupancy provisions apply where the activity is classified as a change of occupancy as defined in Chapter 2.

605.2 Application
Changes of occupancy shall comply with the provisions of chapter 10.

Chapter 7 – Alterations-Level 1

Section 701 – General

701.4 Emergency escape and rescue openings.
Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools, bars, grilles, grates or similar devices placed over emergency escape and rescue openings shall comply with the minimum net clear opening size required by the code that was in effect at the time of construction. Such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the escape and rescue opening. Where such bars, grilles, grates or similar devices are installed, they shall not reduce the net clear opening of the emergency escape and rescue openings.

Chapter 8 – Alterations-Level 2

Section 801 - General

801.3 Compliance
New construction elements, components, systems, and spaces shall comply with the requirements of the International Building Code.
Exceptions:

1. Where windows are added they are not required to comply with the light and ventilation requirements of the International Building Code.
3. The length of dead-end corridors in newly constructed spaces shall only be required to comply with the provisions of Section 805.6
4. The minimum ceiling height of the newly created habitable and occupiable spaces and corridors shall be 7 feet.

Section 803 – Fire Protection

803.4 Fire Alarm and Detection
An approved fire alarm system shall be installed in accordance with Sections 803.4.1 through 803.4.3. Where automatic sprinkler protection is provided in accordance with section 803.2 and is connected the building fire alarm system, automatic heat detection shall not be required.

803.4.3 Smoke Alarms
Individual sleeping units and individual dwelling units in any work area in Group R and I-1 occupancies shall be provided with smoke alarms in accordance with the International Fire Code.

Section 804 – Carbon Monoxide Detection

804.1 Carbon Monoxide Alarms
Any work area in Group I-1, I-2, I-4 and R occupancies shall be equipped with carbon monoxide alarms in accordance with Section 1103.9 of the International Fire Code.

Section 805 – Means of Egress

805.3 Number of exits
The number of exits shall be in accordance with Sections 805.3.1 through 805.3.3.

805.3.1 Minimum Number
Every story utilized for human occupancy on which there is a work area that includes exits or corridors shared by more than one tenant within the work area shall be provided with the minimum number of exits based on the occupancy and the occupant load in accordance with the International building Code.
(Per the IBC, the occupant load is 2,655 SF / 200 SF per occupant = 13 occupants maximum. Therefore, per Table 1006.2.1, one exit is allowed.)

805.5 Openings in Corridor Walls
Openings in corridor walls in any work area shall comply with Sections 805.5.1 through 805.5.4.
Exception:

Openings in corridors where such corridors are not required to be rated in accordance with the International Building Code.

805.5.1 Corridor Doors
Corridor doors in the work area shall not be constructed of hollow core wood and shall not contain louvers.

805.6 Dead-end corridors.
Dead-end corridors in any work area shall not exceed 35 feet.
Exceptions:

4. In other than Group A and H occupancies, the maximum length of an existing, newly constructed, or extended dead-end corridor shall not exceed 50 feet on floors equipped with an automatic sprinkler system installed in accordance with the International Building Code.

Chapter 10 – Change of Occupancy

Section 1004 – Fire Protection

1004.1 General
Fire protection requirements of Section 1011 shall apply where a building or portions thereof undergo a change of occupancy classification or where there is a change of occupancy within a space where there is a different fire protection system threshold requirement in Chapter 9 of the International Building Code.

Section 1005 – Means of Egress

1005.1 General
Means of egress in portions of buildings undergoing a change of occupancy classification shall comply with Section 1011.

Section 1011 – Change of Occupancy Classification

1011.1 General .
The provisions of this section shall apply to buildings or portions thereof undergoing a change of occupancy classification.

1011.1.1.1 Change of occupancy classification without separation.
Where a portion of an existing building is changed to a new occupancy classification or where there is a change of occupancy within a space where there is a different fire protection system threshold requirements in Chapter 9 of the International Building Code, and that portion is not separated from the remainder of the building with fire barriers having a fire-resistance rating as required in the International Building Code for the separate occupancy, the entire building shall comply with all of the requirements of Chapter 9 of this code applied throughout the building for the most restrictive occupancy classification in the building and with the requirements of this chapter. *(Proposed new bedrooms and adjacent exit corridor will be separated from First Floor and adjacent Basement spaces with 1-hour fire rated wall and ceiling assemblies)*

1011.2.2 Fire alarm and detection system
Where a change in occupancy classification occurs or where there is a change of occupancy within a space where there is a different fire protection system threshold requirement in Chapter 9 of the International Building Code that requires a fire alarm and detection system to be provided based on the new occupancy in accordance with Chapter 9 of the International Building Code, such system shall be provided throughout the area where the change of occupancy occurs. Existing alarm notification appliances shall be automatically activated throughout the building. Where the building is not equipped with a fire alarm system, alarm notification appliances shall be provided throughout the area where the change of occupancy occurs in accordance with Section 907 of the International Building Code as required for new construction.

1011.4 Means of egress, general
Hazard categories in regard to life safety and means of egress shall be in accordance with Table 1011.4.

Table 1011.4 Means of Egress Hazard Categories

Relative Hazard	Occupancy Classifications
3	A;E;I-1;M;R-1;R-2;R-4, Condition 2

1011.4.2 Means of egress for change of use to an equal or lower-hazard category.
Where a change of occupancy classification is made to an equal or lesser-hazard category (higher number) as shown in Table 1011.4, existing elements of the means of egress shall comply with the requirements of Section 905 for the new occupancy classification. Newly constructed or configured means of egress shall comply with the requirements of Chapter 10 of the International Building Code.

1011.6.2 Exterior wall rating for change of occupancy classification to an equal or lesser-hazard category.
Where a change of occupancy classification is made to an equal or lesser-hazard category as shown in Table 1011.6, existing exterior walls, including openings, shall be accepted.

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Chapter 3 – Occupancy Classification and Use

310.5 Residential Group R-4
Residential Group R-4 occupancy shall include buildings, structures or portions thereof for more than five but not more than 16 persons, excluding staff, who reside on a 24-hour basis in a supervised residential environment and receive custodial care. Buildings of Group R-4 shall be classified as one of the occupancy conditions specified in Section 3105.1 or 310.5.2.
310.5.2 Condition 2.
This occupancy condition shall include buildings in which there are any persons receiving custodial care who required limited verbal or physical assistance while responding to any emergency situation to complete building evacuation.

Chapter 7 – Fire and Smoke Protection Features

Section 707 – Fire Barriers

707.3 Fire-Resistance Rating.
The fire-resistance rating of fire barriers shall comply with this section.

707.3.4 Exit Passageway.
The fire-resistance rating of the fire barrier separating building areas from an exit passageway shall comply with Section 1024.3.
(Section 1024.3 requires a minimum of 1-hour fire-resistance rated construction for walls, floors and ceilings.)

Chapter 10 – Means of Egress

Section 1003 – General Means of Egress

1003.2 Ceiling Height.
The means of egress shall have a ceiling height of not less than 7 feet 6 inches above the finished floor.
Exceptions
1. Ceilings of dwelling units and sleeping units within residential occupancies in accordance with Section 1207.2. *(IEBC 801.3, Exception 4 allows 7'-0" minimum ceiling height)*

Section 1004 – Occupant Load

1004.1 Design Occupant Load.
In determining means of egress requirements, the number of occupants for whom means of egress facilities are provided shall be determined in accordance with this section.

1004.5 Areas without fixed seating.
The number of occupants shall be computed at the rate of one occupant per unit of areas as prescribed in Table 1004.5. For areas without fixed seating, the occupant load shall be not less than that number determined by dividing the floor area under consideration by the occupant load factor assigned to the function of the space as set forth in Table 1004.5. Where an intended function is not listed in table 1004.5, the building official shall establish a function based on a listed function that most nearly resembles the intended function.

Table 1004.5 Maximum Floor Area Allowances Per Occupant

Function of Space	Occupant Load Factor
Residential	200 Gross

Section 1006 – Number of Exits and Exit Access Doorways

1006.2.1 Egress based on occupant load and common path of egress travel distance.
Two exits or exit access doorways from any space shall be provided where the design occupant load or the common path of egress travel distance exceeds the values listed in table 1006.2.1. The cumulative occupant load from adjacent rooms, areas, or spaces shall be determined in accordance with Section 1004.2.

Table 1006.2.1 Spaces with One Exit or Exit Access Doorway
Occupancy: R-4
Maximum Occupant Load of Space: *20 (Actual occupant load is 13)*
Maximum Common Path of Egress Travel (Feet):
With Sprinkler System: 125

1006.3.3 Single exits.
A single exit or access to a single exit shall be permitted from any story or occupied roof where one of the following conditions exists:

2. Rooms, areas and spaces complying with Section 1006.2.1 with exits that discharge directly to the exterior at the level of exit discharge, are permitted to have one exit or access to a single exit.
4. Group R-3 and R-4 occupancies shall be permitted to have one exit or access to a single exit.

Section 1020 - Corridors

1020.1 Construction.
Corridors shall be fire-resistance rated in accordance with Table 1020.1. The corridor walls required to be fire-resistance rated shall comply with Section 708 for fire partitions.

Table 1020.1 Corridor Fire-Resistance Rating

Occupancy	Required Fire-resistance Rating (hours)
R	0.5

1020.2 Width and Capacity.
The required capacity of corridors shall be determined as specified in Section 1005.41, but the minimum width shall be not less than that specified in Table 1020.2

Table 1020.2 Minimum Corridor Width
Occupancy: With an occupant load of less than 50 (Actual Occupant Load is 13)
Minimum Width: (Inches) 36

Section 1024 – Exit Passageways

1024.3 Construction.
Exit passageway enclosures shall have walls, floors and ceilings of not less than a 1-hour fire-resistance rating, and not less than that required for any connecting interior exit stairway or ramp. Exit passageways shall be constructed as fire barriers in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both.

Section 1030 – Emergency Escape and Rescue

1030.1 General
In addition to the means of egress required by this chapter, emergency escape and rescue openings shall be provided in the following occupancies.

2. Group R-3 and R-4 occupancies.

1030.2 Minimum Size.
Emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet.

1030.2.1 Minimum Dimensions.
The minimum net clear opening height dimensions shall be 24 inches. The minimum net clear opening width dimension shall be 20 inches. The net clear opening dimensions shall be the result of normal operation of the opening.