

1. Occupancy Classification - Mixed Occupancy

-Residential Group R-2
-Assembly Group A-2 (Commercial Restaurant)
(More than 50 persons)

2. Occupant Loads: Table 1004.1.1
Assembly Use - Restaurant (first floor only)

Dining Areas: 582 sf @ 15 sf = 39 occupants
Indoor movable seating 700 sf @ 15 sf = 47 occupants
Commercial Kitchen areas 420 sf @ 200 sf = 2 occupants

TOTAL = 88 Occupants

Three Floors - 4 units per floor = 12 Units Total
3,314 Gross Square feet per floor; Total 9,942 Residential Apartment Area

Fourth Floor

Suite 404 - 734 SF @ 200 SF = 4 Occupants
Suite 403 - 797 SF @ 200 SF = 4 Occupants
Suite 402 - 637 SF @ 200 SF = 3 Occupants
Suite 401 - 537 SF @ 200 SF = 3 Occupants

Third Floor

Suite 304 - 723 SF @ 200 SF = 4 Occupants
Suite 303 - 812 SF @ 200 SF = 4 Occupants
Suite 302 - 610 SF @ 200 SF = 3 Occupants
Suite 301 - 496 SF @ 200 SF = 2 Occupants

Second Floor

Suite 204 - 723 SF @ 200 SF = 4 Occupants
Suite 203 - 819 SF @ 200 SF = 4 Occupants
Suite 202 - 613 SF @ 200 SF = 3 Occupants
Suite 201 - 479 SF @ 200 SF = 2 Occupants

Total = 40 Occupants

Basement Floor

Storage Rooms - 2,121 SF @ 300 SF = 7 Occupants
Mechanical & Electric Rooms - 643 SF

BUILDING TOTAL = 135 OCCUPANTS

3. Construction Type III B - Exterior Walls - 2-hour ; Noncombustible

4. Building Height and Areas:

Group R-2 Sprinklered, Allowable Four Stories; 9,500 SF/ story.
Group A-2 Sprinklered, Allowable Two Stories; 16,000 SF/ story

5. Egress capacity -

Level and Ramps
0.2 inches width per person
Stairways 0.3 inches width per person

6. Section 705 - Exterior Walls and Balconies

1406.3 - Balconies of combustible construction other than fire retardant wood shall be fire resistant rated for floor construction or shall be Type IV (Heavy Timber-HT 602.4) construction. Aggregate length shall not exceed 50% of the building's perimeter.
1406.3 (3) - Balconies of Type III construction shall be permitted to be of Type V construction, are not required to be fire resistant rated where sprinkler protection is extended to these areas.

708.14.1 - Elevator Lobby Enclosure required if connect 3 Stories.

708.14.1(Excp1) not required if street floor protected by automatic sprinkler system

708.14.1(Excp1 4) not required if building protected by automatic sprinkler system

7. Section 708 - Shaft Enclosures: Ducts 716.6 listed fire dampers required at each floor penetration in accordance with the *International Mechanical Code*.

8. Section 712 - Horizontal Assemblies

The fire resistance rating for floor/roof assemblies shall be not less than 1 Hour.
712.3 (Excp1) Dwelling Unit separations of Type IIIB construction type permits ½ Hour fire resistance rating with automatic sprinkler system.

9. 717.4.2 - Draftstopping in Attic & Concealed Spaces - Not required if protected by automatic sprinkler system

10. Section 803 - Wall & Ceiling Finishes: Type C - Corridors, exit passageways and rooms if protected by automatic sprinkler system.

11. Section 906 - Portable Fire Extinguishers

NFPA10 - Type 2A min. rated required at each floor (75 ft Max. Distance Apart)
Type K Class required in Commercial Kitchen.

12. Section 907.2 Fire Alarm & Detection Systems

907.2 (Excp1 2) Manual Fire Alarm box not required for Group R-2 unless required by Code Official/Fire Dept.

13. Automatic smoke detection system is not required where facility is equipped with automatic sprinkler system. 907.2.10.2

14. Smoke Alarms

907.2.1.1 - Smoke alarms complying with UL 217 shall be installed in all R-2 residential occupancies.

a. In ceiling or wall outside of each sleeping area in immediate vicinity of bedrooms

b. In each room used for sleeping

c. On each level of Unit

Power source shall be by primary building service.
-907.2.1.1.3 - Smoke alarms shall be interconnected such that one alarm will activate all the alarms within individual Unit. Alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

2009 INTERNATIONAL BUILDING CODE (IBC) SUMMARY

15. Section 1006 - Illumination of Means of Egress
Means of egress, including exit discharge shall be illuminated at all times building is occupied.
- Illumination level shall be not less than 1 footcandle(1 lux) at the walking surface.

16. Emergency Illumination

Emergency lighting shall be provided for not less than 1 1/2 hour in the event of power failure. Emergency lighting facilities shall be so arranged to provide initial illumination that is not less than an average of 1 Ft candle (10.8 Lux) and at any point not less than 0.1 Ft candle (1.1 Lux) measured along the path of egress at floor level. Contractor shall space accordingly based on emergency light fixture selected to achieve minimum illumination as described herein.
Emergency power system for lighting shall be at least Type 10, Class 1.5, Level 1
In accordance with NFPA 110.

b) Unit equipment and battery system for emergency luminaires shall be listed to UL 924.

c) Emergency lighting shall be either continuously in operation or shall be capable of repeated automatic operation without manual intervention.

17. Door Swing - 1008.1.2

Doors shall swing in the direction of egress travel where serving an occupant load of 50 or more persons.

18. 1008.1.10 Panic and Fire Exit Hardware

a. Doors serving occupant loads of 50 or more persons in Group A Occupancy shall not be provided with a lock or latch unless it is panic hardware or fire exit hardware.

b. Electrical rooms with equipment rated 1,200 amperes or more and over 6 feet wide that contain overcurrent devices or control devices shall be equipped with panic hardware or fire exit hardware.
Doors shall swing in the direction of egress travel.

• Panic hardware shall be listed in accordance with UL305.

• Fire exit hardware shall be listed in accordance with UL10C and UL305.

• The actuating portion of the releasing device shall extend at least one-half of the door leaf width.
• Maximum unlatching force shall not exceed 15 pounds (67N)

19. Stairways - Section 1009

a. Stairways serving occupant load of less than 50 persons shall have width not less than 36 inches.
b. Riser height shall be 7" maximum

c. Treads depth shall be minimum 11"
d. Stair Profile - Radius of curvature at leading edge shall be not greater than 9/16".
- Beveling of nosings shall be not exceed 9/16".

- The leading edge of nosings of treads shall not project more than 1 3/4" beyond the tread below.
- Risers shall be solid & vertical or sloped at angle not more than 30° from vertical.

e. Winder Treads (1009.4.3) Winder treads are not permitted in means of egress stairways except with dwelling unit.

20. Handrails - Section 1009.12

Stairways shall have handrails on each side.
a. Handrail height, measured above stair tread nosings, shall be not less than 34" and not more than 38".

b. Handrail graspability (1012.3)

Type I - circular cross section of 1 1/4" to 2" max. If not circular, it shall have perimeter dimension of at least 4" and not greater than 6 1/4" with maximum cross section of 2 1/4".

Type II - handrails with perimeters greater than 6 1/4" shall provide graspable finger recesses on each side. Minimum width of profile above the finger recess shall be 1 1/4" to max. of 2 3/4". (Refer to IBC section 1012.3.2 for finger recess profile dimensions)

c. Handrails shall be continuous, without interruption by newel posts or other obstructions. (1012.4)

d. Handrails shall return to wall, guard or walking surface or shall be continuous to adjacent stair flight. (1012.6)

Handrails shall extend at least 12" beyond top riser and extend minimum one tread depth beyond the bottom riser.

e. Clearance space between handrail and wall surface shall be minimum 1 1/2".
f. Projections into the required width of stairway at each individual handrail shall not exceed 4 3/4" at or below the handrail height.

Section 1012 - Handrail Graspability (See Details of existing handrails)

21. Guards - Section 1013

Guards shall be located along open-sided walk surfaces, stairs, mezzanines, ramps, and landings located more than 30" measured vertically to the floor/grade below at any point within 36" horizontally to the edge of the open side. Height shall not be less than 42" measured vertically above the adjacent walking surface.

adjacent fixed seating or line connecting the leading edges of the treads.
a. Opening limitations-Guards shall not have openings that allow the passage of a 4"Ø sphere.

b. Guards shall be provided where the roof openings is within 10 feet of the roof edge with guard not allowing the passage of a 21"Ø sphere.

c. Clearance space between handrail and wall surface shall be minimum 1 1/2".
Existing Guards on Stair A Vary from 28" to 31". City CEO shall determine acceptable height requirement.

22. In buildings four stories or more above grade plane, one stairway shall extend to the roof surface. Buildings without an occupied roof, access is permitted by an *alternating tread device*.

23. Common Path of Travel (1014.3:Excp 4)

a. Group R-2 Occupancy permits 125 feet maximum with approved, automatic sprinkler system.
b. Group S Occupancy permits 100 feet maximum with occupant load less than 50.

24. Spaces with One Exit - Section 1015.1 (1) Excp1
a. Group R-2 Occupancy permits one means of egress with a maximum occupant load of 20 persons with an approved, automatic sprinkler system.

25. Two Exits Separation Distance 1015.2.1(2)
Exit doors or exit access doorways shall be placed a distance apart not less than 1/3 diagonal dimension of building being served measured in a straight line between exit doors.

26. Boiler, Incinerator or Furnace rooms, (1015.3)
Two exit doorways are required where room is over 500 S.F. and any fuel-fired equipment exceeds 400,000 Btu input capacity. Doors shall be separated a minimum of 1/2 diagonal dimension of room.

27. Corridor Fire Resistant Rating (Table 1018.1)
R Occupancy requires 0.5 fire resistance rating with an approved, automatic sprinkler system.

28. Dead Ends (Table 1018.4) Excp1 2
R-2 Occupancy permits 50 foot maximum where equipped with an approved, automatic sprinkler system

29. Stairs with One Exit (Table 1021.2)
Third Story - Maximum 4 Dwelling Units per floor and 50 foot Travel Distance.
and equipped with an approved, automatic sprinkler system.

30. Emergency Escape Windows (1029) Excp1
Emergency escape windows not required if equipped with an approved, automatic sprinkler system.

31. Interior Wall & Ceiling Finishes (Table 803.9)
Group R-2 Occupancy, equipped with an approved, automatic sprinkler system

• Exit enclosures and exit passageways - Class C
• Corridors - Class C
• Rooms and enclosed spaces - Class C

Group A-2 Occupancy, equipped with an approved, automatic sprinkler system

• Exit enclosures and exit passageways - Class B
• Corridors - Class B
• Rooms and enclosed spaces - Class C
• Lobby Areas - Class B

32. Exit Enclosures (Section 1022)
Stairways connecting four or more stories shall have fire resistance rating not less than 2 Hours. Stairways connecting three stories or less shall have fire resistance rating not less than 1 Hour. The number of stories connected by the exit enclosure shall include any basements.

33. Interior Spaces
a. Habitable spaces and Corridors shall have ceiling height of not less than 7'-6". Bathroom, toilet rooms, kitchens, storage rooms and laundry rooms are permitted 7'-0".
b. Rooms containing bathtubs, showers, spas and similar bathing fixtures shall be mechanically vented in accordance with the *International Mechanical Code* (Refer to Mech drawings by others)

34. Every room or space that is an assembly occupancy shall have occupant load posted with permanent sign in conspicuous place near main exit (1004.3)

35. Marking of Means of Egress (Section 1011)
Exit signs shall be illuminated at all times.
(See also NFPA Summary Notes on Dwg. 1.S1)

a) Provide illuminated exit signage other than main exterior door clearly identifiable as an exit.
b) Provide illuminated exit signage (directional) where the continuation of the egress path is not obvious.
c) Exit sign placement shall be such that no point in an exit access corridor or passageway is more than 100 feet or the *listed* viewing distance of the sign, whichever is less, from the nearest visible exit sign.

Tactile exit signs stating "EXIT" and complying with ICC A117.1 shall be provided adjacent to each door to each passageway and at the exit discharge. (1011.3).

Visual and Tactile EXIT signage (raised letters) shall be provided at each exit door requiring an exit sign and at accessible restrooms. Character style, case, depth and height shall comply with the *American National Standard for Accessible and Usable Buildings and Facilities* (2010 ADA Standards for Accessible Design). Signs shall be located 48" above the finished floor or ground surface, measured from the baseline of the lowest tactile character, and 60" maximum above the finished floor, measured from the baseline of the highest tactile character. Locate signs within 18" of the latch side of doors, or when there is no wall space available, at the nearest adjacent wall.

Visual and Tactile signage, accompanied by the International Symbol of Accessibility, shall be provided at accessible toilet facilities. Character case, style, proportions and height shall comply with 703.5. Visual characters shall be 40" minimum above finished floor or ground. Signs shall be located within 18" of the latch side of doors or on the push side of doors with closers and without hold open devices in accordance with 703.4.2.

36. Any Attic Area having clear height of over 30" shall have an opening not less than 20" x 30" and clear headroom height of 30" above access area. (Section 1209)

37. Glazing at all interior walls and exterior walls shall meet criteria for safety glass installation in accordance with section 2406 of the IBC 2009 code. Contractor shall confirm compliance of existing glazing in field (typ)

a. Glazing less than 18" above finished floor and within 24" of door (less than 60" above floor) and glazing within 36" horizontally of walking surface requires safety glazing.
Contractor shall verify existing glazing at exterior walls for safety glazing compliance.

b. Safety glazing is not required for the following installation:
A protective bar 1 1/2" or more in height capable of withstanding a horizontal load of 50 pounds without contacting the glass, is installed on the accessible sides of the glazing 34" to 38" above the floor.

38. Energy Efficiency
Compliance with the International Energy Conservation Code (IECC) for alterations shall be such that the existing building is no less conforming to the provisions of this code than the existing building was prior to the alterations. Any alterations to the existing building shall conform to the provisions of this Energy Code as they relate to new construction without requiring the unaltered portions to comply with this code.

Climate Zone 6
Residential:
Wood framed Walls - R21
Attic & other - R49

Other:
Woods framed Walls - R21
Above Grade Mass Walls -R13.3ci
Attic & other - R49

Opaque Doors - Swinging R2.7 (U-0.37)
Floor Joist framing - R30 (Steel floor joists R38)
Opaque Doors - Swinging R2.7 (U-0.37)

Vertical Fixed Fenestration - R2.7(U-0.36)
Operable Fenestration - R2.3(U-0.43)

SHWARTZ BUILDING RENOVATIONS
600-604 CONGRESS STREET
PORTLAND, MAINE
IBC CODE SUMMARY

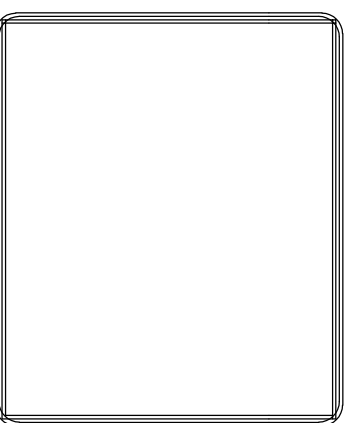
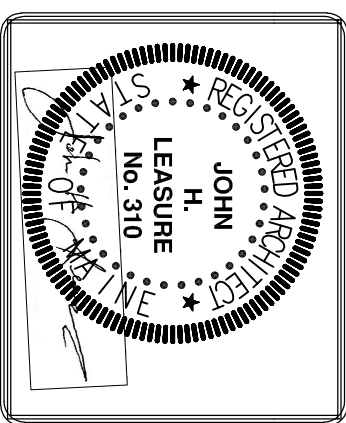
JOHN H. LEASURE ARCHITECT, INC.
6 O STREET
SOUTH PORTLAND, MAINE 04106

A1

REV. DATE STATUS

0 3-30-17 STATE FIRE MARSHAL SUBMISSION

1 4-28-17 CITY SUBMISSION



REV.	DATE	STATUS
0	3-30-17	STATE FIRE MARSHAL SUBMISSION
1	4-28-17	CITY SUBMISSION