Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 08/31/15

Project Description:	New 3,400 sq.ft. bar and restaurant on the ground floor of an existing 5 story brick and wood structure on Fore Street in Portland.
Business Name:	T/B/D
Address:	10 Free Street, Portland, ME
Owner Contact:	Nat Towl NMT Woodworking, Inc. 183 Mariner Street South Portland, ME 04106-2939 (207) 321-9038 nmtwoodworking@yahoo.com
Architect:	Canal 5 Studio Timothy R. Hart, AIA, Principal One Canal Plaza, #888 Portland, ME 04101 (207) 415-7695 thart@canal5studio.com
Design Engineer(s)	n/a
Zone:	Downtown B-3
Relevant Districts and Overlays	Congress Street Historical District Downtown Entertainment Overlay Zone Pedestrian Activity District
Proposed Use:	Restaurant and Bar, Assembly A-2 (IBC), Existing Assembly (Ch.13—NFPA)
Former Use:	Vacant
Change of Use:	Yes

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Sprinklered:	Yes
Fire Alarm:	Yes. Existing building is alarmed and monitored and this space will be tied into the building alarm.
Building Description:	Space is on ground floor of existing 5 story brick building with wood framed floor ceiling assemblies. Type 3-B.
Total Sq.Ft.	3,400 sq.ft.
Occupant Load	121
# Exits	2
Mixed Occupancy	Yes. Separated with 1 Hr. ceiling assembly.
Panic Hardware	Yes. At both exits.
Relevant Codes	IBC 2009 IEBC 2009 IEEC 2009 NFPA 101, 2009 Maine State Plumbing Code Maine State Food Code

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USE AND OCCUPANCY

Code Criteria	IBC 2009	NFPA 101 2009	DISCUSSION / FINDINGS
CLASSIFICATION OF OCCUPANCY	§303.1	§6.1.2.1	A-2 Assembly
SEPARATION OF OCCUPANCIES	§508 Table 508.4	§6.1.14.4 Table 6.1.14.4.1	Separation required. Business occupancies above. 1 Hr. separation required in ceiling/floor and interior side wall.
ACCESSORY OCCUPANCIES	§508.2		n/a
INCIDENTAL OCCUPANCIES	§508.2.5		n/a
MIXED OCCUPANCY			No mixed occupancy. Occupancies will be separated.

SPECIAL USES & OCCUPANCIES

Code Criteria	IBC 2009	NFPA 101 2009	DISCUSSION / FINDINGS
SPECIAL USES & OCCUPANCIES	Ch.4	Ch.11	n/a. No special uses.

CONSTRUCTION TYPE

Code Criteria	IBC 2009	NFPA 101 2009	DISCUSSION / FINDINGS
CONSTRUCTION CLASSIFICATION	§602 Table 601		Existing brick building with wood framed floor ceiling assemblies. Type 3B

BUILDING HEIGHT AND AREA

Code Criteria	IBC 2009	NFPA 101 2009	DISCUSSION / FINDINGS
BUILDINGS ON SAME LOT	§503.1.2		n/a
BUILDING HEIGHT	§504		n/a

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	Table 503		
Automatic Sprinkler Increase	§504.2		n/a
BUILDING AREA	§506 Table 503		Base allowance is 9,500 sq.ft. per floor
Frontage Increase	§506.2		none
Automatic Sprinkler Increase	§506.		+200% = 9.5K + 19K = 28,500 sq.ft. per floor

MEANS OF EGRESS

Code Criteria	IBC 2009	NFPA 101 2009	DISCUSSION / FINDINGS
GENERAL MEANS OF EGRESS	§1003		
Ceiling Height	§1003.2		minimum celling height 7'6"
Protruding Objects	§1003		minimum protruding height 6'-8"
Horizontal Projections	§1003		4" max.
Floor Surface	§1003		Slip resistant surface & securely attached.
OCCUPANT LOAD	§1004 Table 1004.1.1	§7.3.1.2 §13.1.7	**Total occupant load = 121** See calculations below.
Bar Seating Area (Assembly)			concentrated w/chairs – 7 sq.ft. (net) 402 sq.ft. ÷ 7 = 58 persons
Lounge Seating Area (Assembly)			less concentrated with tables & chairs – 15 sq.ft. (net) 597 sq.ft ÷ 15 = 40 persons
Kitchen(s) & Bar Work Area			100 sq.ft. / person (gross) 1,340 sq.ft ÷ 100 = 14 persons
General Circulation & Toilets Areas			100 sq.ft. / person (gross) 890 sq.ft ÷ 100 = 9 persons
EGRESS WIDTH	§1005		
Stairway Width	§1005.1 §1008.1	§7.3.3 §7.3.4 Table 7.3.3.1	0.3" per occupant or 44" (min), whichever is greater. 61 occupants x 0.3"/occupant = 19". 44" provided ≥ 19" ∴ OK
Components Width (doors & corridors)	§1005.1		0.2" per occupant

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Code Criteria	IBC 2009	NFPA 101 2009	DISCUSSION / FINDINGS
			61 occupants x 0.2”/occupant = 13” required. 44” provided ≥ 13” required ∴ OK
Misc			
Emergency power	§1006.3		Aisles, corridors, exit enclosures need emergency lighting.
Accessible means of egress	§1007.1	§7.5.4	Not required for existing buildings
Doors	§1008.1.1		32” clear (36” door)
Panic and Fire Exit Hardware	§1008.1.10	§7.2.1.7 §13.2.2.2.3	Panic hardware required for group A occupancies > 50 occupants.
Stair Width	§1009.1		Minimum width 44”
Ramps	§1010	§7.2.5	Slope ≤ 1 in 12. Max rise 30”. landing length 5’ min., landing width ≥ ramp width (at widest).
Exit Signs	§1011	§7.10	Exits (other than main exits clearly identifiable as such) need exit signs. Exit access clearly marked with signs.
Handrails	§1012		Of uniform height 34” to 38”.
Guards	§1013		Required where ≥ 30” grade change at stairs & ramps.
EXITS & EXIT ACCESS			
Egress through intervening spaces	§1014.1	§7.5.1.6 §13.2.5.2	Can only pass through adjoining spaces if they are accessory to each other and provide a discernible path of egress. Cannot pass through a room that can be locked to prevent egress. No egress through kitchens.
Common Path of Travel	§1014.3 §1028.8(2)	§13.2.5.1.2	20’ max for area serving any number of occupants, 75 feet for area serving ≤ 50 occupants (nfpa more restrictive than IBC)
# Exits	§1015 Table 1015.1 §1021.1 Table 1021.1	§7.4 §13.2.4	50 ≤ Occupant load ≤ 500 ∴ 2 exits.
Remoteness of Exits	§1015.2		1/3 diagonal rule. See code plan for compliance.
Boiler room # Exits	§1015.3		Boiler ≥ 400K BTU requires two exits. (n/a)
Refrigeration machine rooms	§1015.4		If ≥ 1,000 sq.ft. then two exits. (n/a)
Exit Access Travel Distance	§1028.7	§13.2.6.2	250’ max distance.

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Code Criteria	IBC 2009	NFPA 101 2009	DISCUSSION / FINDINGS
	Table 1016.1		
Aisles	§1028.9.1(4) §1028.9.1(5)	§13.2.5.8.2 §13.2.5.8.2	Minimum clear width for aisles is 44" (NFPA more restrictive than IBC). 19" perpendicular to table or bar marks the beginning of aisle.
Corridor rating	§1018 Table 1018.1		No rating required in sprinklered bldg.
Corridor Width	§1018.2		44" minimum. Must not be less than that set for "components" by 1005.1
Dead End Corridors	§1018.4	§13.2.5.1.3	20' max dead-end corridor.
Exit Enclosures	§1022		Exit stairways enclosed with 1 HR barrier where connecting four or less stories. *NOTE: Exit stairs go up one floor and exit directly onto Free Street. They do not connect to any other floors.*
Common Path of Egress Travel	§1014.3 §1028.8		30' for space serving more than 50 occupants. 75' for space serving less than 50 occupants.

FIRE AND SMOKE PROTECTION FEATURES

Code Criteria	IEBC 2009	NFPA 101 2009	DISCUSSION / FINDINGS
FIRE BARRIERS	§707.3.2		Exit enclosures shall comply with §708.4. ≤ 4 stories ∴ 1 HR. *NOTE: Exit stairs go up one floor and exit directly onto Free Street. They do not connect to any other floors.*
Continuity	§707.5		Attaches to bottom of floor ceiling assembly continuous through any concealed spaces.
Penetrations	§707.7		
Horizontal Assemblies	§712		Ceiling floor assembly must be one hour rated to separate occupancy above.

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Interior Finishes

Code Criteria	IEBC 2009	NFPA 101 2009	DISCUSSION / FINDINGS
DECORATIVE MATERIALS AND TRIM	§806		In group A, decorative materials suspended from walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 or be non-combustible.
WALL AND CEILING FINISHES	§803 Table 803.9		Group A-2, sprinklered spaces require class B finishes in corridors and exit enclosures and class C finishes in rooms and enclosed spaces.

FIRE PROTECTION SYSTEMS

Code Criteria	IEBC 2009	NFPA 101 2009	DISCUSSION / FINDINGS
AUTOMATIC SPRINKLER SYSTEMS	§903.2.1.2		In group A-2 occupancies of ≥ 100 occupants, NFPA 13 sprinklers required.
STANDPIPE SYSTEMS	§905		Existing?
PORTABLE FIRE EXTINGUISHERS	§906		Within 30’ of commercial cooking equipment 906.1(2).
	Table 906.3(1)		Assume ordinary (moderate) hazard occupancy for Class A fire hazard. Maximum travel distance to extinguisher = 75’

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