

Applicable Codes:

City of Portland, Maine Code of Ordinances
 1999 NFPA 70 - National Electrical Code w/Portland Amendments (Sec. 6-32)
 1993 BOCA National Mechanical Code w/Portland Amendments (Sec. 6-86)
 2009 NFPA 101 - Life Safety Code w/Portland Amendments (Sec. 10-1)
 2009 NFPA 1 - Fire Code w/Portland Amendments (Sec. 10-16)

<http://www.portlandmaine.gov/133/City-Code>

Maine Uniform Building and Energy Code (MUBEC)
 2009 International Building Code (IBC)
 2009 International Existing Building Code (IEBC)
 2009 International Energy Conservation Code (IECC)
 2009 Uniform Plumbing Code
 2007 ASHRAE 62.1 - Ventilation for Acceptable Indoor Air Quality
 2007 ASHRAE 90.1 - Energy Standard for Buildings except Low Rise Residential Buildings w/out addenda

CODE REVIEW SUMMARY:

PORTLAND ZONING ORDINANCE REVIEW:

ITEM #	ITEM	SECTION	REQUIREMENT	PROPOSED COMPLIANCE
	Zoning		Zone B3 - Downtown Business Historic District PAD overlay zone	Part of the zone listed at: Free Street, north side, from Congress Square to Temple Street
	Minimum Lot Size	14-220.A	None	
	Minimum Street Frontage	14-220.B	15 Feet	
	Street wall build-to-line	14-220.C	structures must be located within 5 feet of the property line along street frontages	
	Minimum Yard Dimension	14-220.D	None	
	Minimum lot Width	14-220.E	none	
	Maximum length of undifferentiated black wall along a public street	14-220.F	15 feet - PAD overlay Zone 30' - All other zones	
	Maximum Lot Coverage	14-220.G	100%	
	Minimum Building Height	14-220.H	35 feet minimum within 50 feet of street frontage	Exception 4 allows for lower buildings as part of an addition
	Maximum Building Height	14-220.I (and Downtown Height Overlay Map)	150 feet maximum plus 40 feet additional height for building cap 90 feet maximum street wall height	

CODE REVIEW BY SECTION: IBC vs. NFPA 101

ITEM #	ITEM	MUBEC / 2009 IBC SECTION	REQUIREMENT	2009 NFPA 101 - Life Safety Code SECTION	REQUIREMENT	PROPOSED COMPLIANCE
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1.0 USE AND OCCUPANCY

Primary Use	303	Assembly Group A-1 and A-2	Chapter 12 + 13	Assembly Occupancy		
Hazard Classification			12.1.5	Ordinary Hazard Content		

2.0 CONSTRUCTION TYPE & GENERAL BUILDING HEIGHT AND AREA LIMITATIONS

ITEM #	ITEM	SECTION	REQUIREMENT	2009 NFPA 101 - Life Safety Code SECTION	REQUIREMENT	PROPOSED COMPLIANCE
	Construction Type	Table 503 and 506.3	Type VB	Table A.8.2.1.2	Type V (000)	Construction Type to be TypeVB / Type V (200) due to existing structural elements in existing building, though effectively all new construction is non-combustible type IIB / II(000) Basement Area = 9,884 SF (IBC) / 9,886 SF (NFPA) First Floor Area = 10,743 SF (IBC) / 10,642 (NFPA) Balcony = 3,732 (IBC) / 3,732 (NFPA)
	Area Limitation	Table 503 and 506.3	5,500 SF per Story w/ Sprinkler Increase (I=2) and Frontage Increase (I= .29) up to 18,095 SF per Story			
	Story Limitation	Table 503 and 504.1	1 Story w/ Sprinkler increase up to 2 stories above grade.	12.1.6 / 4.6.3	1 story below grade and 2 stories above grade allowed, with 300 occupant max in upper level Interstitial space shall not be considered a separate story	
	Story Limitation - Mezzanine/Interstitial Space	505.1 / 505.4.1	Mezzanines shall not contribute to building area or number of stories. Floor area shall not exceed 1/3 or floor below. Mezzanine may be enclosed if occupant load < 10	4.6.3.3 / 4.6.3.4	Interstitial Space and Mezzanines shall not be counted as a story	Mezzanine = 1,252 SF, Level below = 4,200 SF Occupant Load = 5 Area under balcony seating tier qualifies as a Mezzanine/Interstitial Mechanical Space and does not count towards the buildings area or number of stories
	Height Limitation	Table 503 and 504.1	40 Feet w/ Sprinkler increase up to 60 Feet			Building to be 45' Above Average Grade Plane and 49'-10" at Highest Portion (plus mechanical equipment)

3.0 BUILDING SEPARATION & EXPOSURE PROTECTION

Exterior Walls - Load Bearing & Non-load Bearing	Tables 601, 602	Distance 5 x 10-feet = 1 Hour Distance X x 30-feet = 0 Hour	NFPA 220, Table 4.1.1	1hr Wall required adjacent to parking structure
Exterior Openings	Table 705.8	Unprotected. Sprinklers > 30-feet = Not Required Unprotected. Sprinklers, 5' - 10' = 25%		Exterior Openings - No Limit on Center and Free Street, 25% adjacent to parking garage

4.0 FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS

ITEM #	ITEM	SECTION	REQUIREMENT	2009 NFPA 101 - Life Safety Code SECTION	REQUIREMENT	PROPOSED COMPLIANCE
	Primary Structural Frames	Table 601	0 hr	Table A.8.2.1.2	0 hr	1hr structure at beams supporting stair 151. See Code sheets and stair details.
	Exterior Bearing Wall	Table 601	0 hr	Table A.8.2.1.2	0 hr	
	Interior Bearing Wall	Table 601	0 hr	Table A.8.2.1.2	0 hr	
	Non-bearing Exterior Walls	Table 601	0 hr	Table A.8.2.1.2	0 hr	1hr adjacent to parking garage, see section 3.0
	Non-bearing Interior Walls	Table 601	0 hr	Table A.8.2.1.2	0 hr	
	Floor Construction and Secondary Members	Table 601	0 hr	Table A.8.2.1.2	0 hr	
	Roof Construction and Secondary Members	Table 601	0 hr	Table A.8.2.1.2	0 hr	

4.0 FIRE AND SMOKE PROTECTION FEATURES

ITEM #	ITEM	SECTION	REQUIREMENT	2009 NFPA 101 - Life Safety Code SECTION	REQUIREMENT	PROPOSED COMPLIANCE
	Automatic Sprinkler Systems	903.2.1	Sprinkler system required for group A-1/A-2 occupancy	12.3.5.1 / 12.3.5.2	Sprinklers required	Automatic Sprinkler provided
	Smoke Evacuation			12.4.5.5	Required at "regular" stages with an area greater than 1,000 SF	Stage is 860 SF and as such smoke Evacuation is not required and will not be provided. Smoke evacuation is not required to reduce any egress path widths
	Corridor Construction	1018.1	No fire/smoke rating required with Sprinkler System	12.3.6	No fire/smoke rating required with Sprinkler System	Corridor protection not provided
	Exit Enclosure	1022.1	1 Hour connecting 3 stories or less 2 Hours connecting 4 stories or more	7.1.3.2	1 Hour connecting 3 stories or less 2 Hours connecting 4 stories or more	1hr rating at stairs
	Communicating Space			8.6.6	Communicating Spaces shall be permitted if requirements are met	Per conversation with SFMO, additional roof vents will be provided as limited sight lines may cause non-compliance of 8.6.6 (3)
	Protection of Vertical Openings			12.3.1	To be enclosed and protected per 8.6	All vertical openings are protected. Stair 151 uses a 1hr fire curtain to complete rated enclosure at grade.

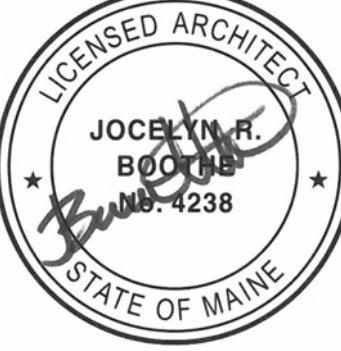
5.0 MEANS OF EGRESS

ITEM #	ITEM	SECTION	REQUIREMENT	2009 NFPA 101 - Life Safety Code SECTION	REQUIREMENT	PROPOSED COMPLIANCE
	Occupant Load	Table 1004.1.1		7.3.1.2		See Code Review Drawing Sheets. Total Occupant Load = 1,469
	Egress Width per Occupant	1005.1	.3" per person Stairways .2" per Person Horizontal	7.3.3.1	.3" per person Stairways .2" per Person Horizontal	293" Stair Width Required 284" Horizontal width required (403" provided)
	Minimum Door Widths	1008.1.1	32" Minimum Clear Width	7.2.1.2.3	32" Minimum Clear Width	
	Common Path of Travel	1014.3 / 1028.8	75 feet with Sprinkler System / 90 Feet in Assembly	12.2.5.1.2 / 42.2.5	20' for path serving any number of occup 75' for path serving < 75 Occup. 100' in Storage with AES	
	Travel Distance	Table 1016.1 / 1028.7	250 Feet with Sprinkler System	12.2.6.2	250 feet with sprinkler system 400' in Storage with AES	
	Corridor Width	1018.2	44" min when occupancy > 50 36" min when occupancy < 50	12.2.3.8	44" min when occupancy > 50	
	Dead End Corridors	1018.4	20 Feet with Sprinkler System	12.2.5.1.3	20 Feet max 100' in Storage with AES	

ITEM #	ITEM	MUBEC / 2009 IBC		2009 NFPA 101 - Life Safety Code		
		SECTION	REQUIREMENT	SECTION	REQUIREMENT	PROPOSED COMPLIANCE
	Minimum Number of Exits per Story	Table 1021.1 / 1021.2	Min 2 exits from Basement (1-500) Min 3 exits from 1st floor (501-1,000) Min 2 exits from Balcony (1-500)	7.4.1.2 / 42.2.4.1.2	Min. 2 exits in Assembly Single means of egress if Common Path of travel is achieved	
	Main Entry/Exit	1028.2	Main exit must accommodate not less than 1/2 of the occupant load Exception: no well defined exit or multiple main exits - exits may be distributed	12.2.3.6.5 / 12.2.3.6.6	Main exit shall accommodate 2/3rds of total occupant load	As the entry is through a Lobby, and there is no well-defined main entry - exits are distributed around the perimeter of the building
	Assembly Other Exits	1028.3	When occupant load >300, additional means of egress must accommodate not less than 1/2 of the occupant load Exception: no well defined exit or multiple main exits - exits may be distributed	12.2.3.7	Other exit shall accommodate 1/2 of total occupant load	As the entry is through a Lobby, and there is no well-defined main entry - exits are distributed around the perimeter of the building
	Interior Balcony Exits	1028.5	If seating capacity > 50, 2 exits			2 Exits are provided
	Exit Separation			7.5.1.3.3	separation distance between two exits > 1/3 the length of maximum overall diagonal dimension w/ sprinkler system	
	Exit Discharge	1027.1	Exits shall discharge directly to the exterior. Combination of exceptions 1 and 2 shall not exceed 50%			
		1027.1.1	max 50% exits may egress through areas on the level of discharge if: - exit is readily visible - level of discharge separated from below with rated construction - automatic sprinkler system			
		1027.1.2	max 50% can egress through vesibule if: - separated from below with rated construction - 10' deep max, 30' wide max - rated enclosure - only used for means of egress			
	Balcony Egress/Aisle Width	1028.6.1.1	.3" width per occupant for stairs with risers ≤ 7" and tread ≤ 11"			Appropriate Width Provided, See Plans
	Balcony Egress/Aisle Width	1028.6.1.2	.005" additional width/occupant per .1" additional riser height above 7"			Appropriate Width Provided, See Plans
	Path Through Adjacent Rows	1028.8.1	If to reach 2nd path of travel, one must travel across the aisle, through seats to another aisle: 24 max seats, 12" between seats plus .7" per seat above 7' between aisles			See Plans, condition does not exist, 2 exit paths always available without crossing over and aisle.
	Aisle Width	1028.9.1	48" when seats on both sides Handrails allowed to protrude per 1028.13 36" when < 50 Occupants 36" when seats on 1 side 23" when seats on both sides and divided by a handrail 42" for level or ramped with seats on both sides 35" for level or ramped with seats on 1 side			Aisle stairs 36" Min. with seats on one side only / divided by handrail. Handrails allowed
	Aisle Termination	1028.9.5	20' max dead-end if not connected to exit path, or 24 seat max to next aisle			See Plans
	Clear Aisle Width Serving Seats	1028.1	12" min < 14 seats 12" min + .3" per additional > 14 seats when seating served by 2 aisles 12" min + .6" per additional > 14 when seating served by 1 aisle 22" max required			
	6.0 SPECIAL OCCUPANCY REQUIREMENTS					
	Electrical Closets w/ transformers > 112.5 KVA		N/A	NFPA 70, 450.21	1 Hour	No new interior transformers
	Electrical Closets w/ transformers < 112.5 KVA		N/A	NFPA 70, 450.21	0 Hour	No new interior transformers
	Storage Rms		N/A	12.3.2.1.2 / 8.7.1.2	1 Hour or Automatic Extinguishing System and smoke partition	Smoke Partition and AES
	Elevator Shafts			9.4 / 8.6.5 / ASME A17.1	Enclosures connecting > 4 stories = 2hr Enclosures connecting < 4 stories = 1hr	1hr elevator shaft wall provided
	Elevator Machine Rooms			9.4.5		Machine Room Less Elevator Provided
	7.0 STAIRWAYS					
	Stairway Width	1009.1	44" Min (36" min. for <50 Occupants)	7.2.2.2.1.2	44" Min (36" min. for <50 Occupants)	
	Headroom	1009.2	80" min headroom clearance	7.2.2.2.1.1(a)	80" min headroom clearance	
	Stair Treads and Risers	1009.4	4" min < Riser < 7" max 11" min tread	7.2.2.2.1.1(a)	4" min < Riser < 7" max 11" min tread	
	Aisle Stair Treads	1028.11.1	11" min, dimensional uniformity (3/16" tolerance)			12" aisle treads used
	Aisle Stair Risers	1028.11.2	4" s Riser ≤ 8" and uniform within each flight			8" aisle risers used
	Profile	1009.4.5	Risers shall be solid			
	Stairway Landing	1009.5	Required at top and bottom. Width and distance in direction of travel equal to or greater than stair width	7.2.2.3.2	Landing size can not decrease in the path of travel. Distance in direction of travel equal to or greater than stair width	
	Vertical Rise	1009.7	12" max vertical rise between floors or landings	7.2.2.2.1.1(a)	12" max vertical rise between floors or landings	
	Handrails	1009.12	Handrails required on both sides	7.2.2.4.1.1	Handrails required on both sides	
	Handrail Height	1012.2	34" min and 36" max above stair tread nosing	7.2.2.4.4.1	34" min and 36" max above stair tread nosing	
	Handrail Grasability	1012.1.1	Must comply with Type 1			
	Handrail Extensions	1012.6	Must extend 12" beyond top riser and depth of 1 tread beyond bottom riser	7.2.2.4.4.10	must extend 12" beyond top riser and depth of 1 tread beyond bottom riser	
	Aisle Handrails	1028.13	required at either side or with aisle handrail extensions not required			
	Aisle Discontinuous handrails	1028.13.1	gaps required in middle rails every 5 rows, 22" - 36" clear width			Only 5 rows of seating, no gap required
	Aisle Intermediate handrails	1028.13.3	when handrails are located in the middle of aisle stairs, additional intermediate handrail to be provided 12" below the main handrail			
	Guard Rails	10013.1	Required on landings > 30" high			*See Assembly Specific Requirements below
	Guard Rail Height	1013.2	42" min	7.2.2.4.5.2	42" min	
	Assembly Guards	1028.14	elevation < 30" = 26" high guard If seats are + 24" high = no guard			no guards provided at back row of seats
	Assembly Guards	1028.14.2	elevation > 30" = 26" high guard if guard would interfere with sightlines			36" - 42" guards provided
	Assembly Guards	1028.14.3	elevation > 30" and @ aisle end = 36" min			36" - 42" guards provided
	Opening Limitations	1013.3	4" max opening	7.2.2.4.5.3	4" max opening	
	Enclosure of Stair			7.2.2.5.1.2	Inside stairs, other than those serving as an exit or exit component, shall be protected in accordance with Section 8.6	Section 8.6 allows an exception for unenclosed stairs.

0 ISSUED FOR CONSTRUCTION 06 JUNE 2016

REV. DESCRIPTION DATE



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ASYLUM

PROJECT: **CODE REVIEW NOTES**

SHEET TITLE: **CODE REVIEW NOTES**

WBRC CAD FILE: C:\Users\jbooth\Documents\407110 - ASYLUM DANCE CLUB - ARCH - JOCELYN BOOTH.rvt

PROJECT No: **4071.10** GRAPHIC SCALE: 0" = 1'

SCALE: PROJECT MANAGER: **JRB** SHEET No: **G1003**

DRAWN BY: **JRB** CHECKED BY: **JET/MEJ**