

489 Congress Street - Fit-up Portland, ME					11/3/2017
Code Analysis					
	IBC 2015			NFPA 101 - 2009	
Category	Reference	Code Requirements	Reference	Code Requirements	Proposed
Use Group	304.1	Use B-Business	3.3.178.3	Business Occupancy	Business: Office Space
Building Construction	Tables 601 & 602	Type III (B) - Common unprotected	NFPA 220	Construction Type III (200) - Unprotected	
	Primary Struct. Frame 0HR	Load bearing brick exterior walls and interior elements (some heavy timber columns)			
	NR	Foundation - Unknown			
	Bearing 2HR	Exterior - 12-24 inch brick.			
	Non-Bearing 1HR	Exterior - 12-24 inch brick.			
	Non-Bearing 0HR	Interior walls - Wood stud with GWB surfacing			New walls: Wood frame with GWB
	Floor & Secondary Members 0HR	Existing Floors - assuming 2x wood framing at 16" or 12" c/c with plaster or GWB finish			
	Roof Construction & Secondary Members 0HR	Existing roof - assuming 2x wood framing at 16" or 12" c/c with plaster or GWB finish and suspended GWB and ACT ceilings			
Height & Area Limitations	Table 506	57,000 SF Per Floor			4,453 SF
	Table 504	4 Stories / 75' (sprinklered)			3 stories / unknown existing height
Area Modifications	506.3	Street Frontage Increase - not used			
Maximum allowable area	506.3	57,000 SF Per Floor - No increases used			
					13,759 SF Estimated Total "Building Area"
Fire ratings - Exterior	Table 602	Exterior walls <5' = 2 hr			2 Hour
		Exterior walls 5<X<10' = 2 hr			2 Hour
		Exterior walls 10'-30' from adjacent structures - 1 Hr			2 Hour
Fire Ratings - Interior	Table 1020.1	Exit access corridors - 0 Hour (with sprinkler system)	38.3.6	Exit Access Corridors need not be rated if occupied by a single tenant/sprinklered	NA - none
	713.4	Shaft enclosures - 1 hr			3-story stairs <i>estimated</i> 1-hour
	Table 601	Int. nonloadbearing walls - 0 Hour			0 Hour
	Table 601	Floor Construction - 0 Hour	38.3.7	Subdivision of Building Spaces: NR	0 Hour
	Table 601	Roof construction - 0 Hour			0 Hour
			38.3.2 > 8.7	No high hazard areas, no cooking equipment	No applicable conditions
	1011.7.3	Enclosures under stairs shall be 1 hour fire rated construction			Under-stair areas are not under tenant control
Fire Door and Fire Shutter Fire Protection Ratings	Table 716.5	1 Hour shafts: 60 Minute Doors	Table 8.3.4.2	1hr Elevator Hoistways = 1hr doors	Existing non-compliant conditions - see plans
				1hr stairs = 1hr doors / windows not permitted	
Fire Window Assembly Fire Protections Ratings	Table 716.5	1 Hour shafts: Fire rated glazing meeting NFPA 252 per 716.5.6	Table 8.3.4.2	1 hr stairs = windows not permitted	Existing wired glass in doors and metal framed sidelights to remain

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	Table 705.8	Area Limitations - <3' from property line, unprotected, sprinklered - not Area Limitations - 3'-5' from property line, unprotected, sprinklered - 15% Area Limitations - 5-10' from property line, unprotected, unsprinklered - 25%			No changes to existing openings
Fire Damper Rating	Table 717.3.2.1	45 minutes required			No changes to existing systems - not surveyed
Ducts and Air Transfer Openings	717.5.1	Fire Walls - Fire Dampers required			No changes to existing systems
	717.5.1.1	Fire Walls in Horizontal Exits - Smoke Dampers required			No changes to existing systems
	717.5.2.1	Fire Barriers in Horizontal Exits - Smoke Dampers required			No changes to existing systems
	717.5.3	Shaft Enclosures - Fire Dampers and Smoke Dampers required			No changes to existing systems
	717.5.4	Fire Partitions - Ducts penetrating fire partitions shall be equipped with fire dampers.			No changes to existing systems
Interior Flame Spread Index	Table 803.11	Required exit enclosures and passageways - B permitted in buildings	38.3.3.2.1	Walls & ceilings in exits- Class A or B	No changes to existing systems
		Corridors - C	38.3.3.3.2	Walls & ceilings in other areas- Class A B or C	No changes to existing systems
		Rooms or enclosed spaces - C			No changes to existing systems
Occupant Load	Table 1004.1.2	Business use spaces = 1/100 GSF	Table 7.3.1.2	Offices = 1/100 SF	
		1st Floor Mixed Occupancy: Not considered		First Floor: Not Considered	
		2nd Floor Office: Not considered		Second Floor: Not Considered	
		3rd Floor Office: 45 OCC		Third Floor: 45 Occupants	
Means of Egress	1005.3	Egress width per occupant @ stairways = 0.3" x 45 = 13.5" Egress width capacity per occupant @ doors and corridors = .2" x 45 = 9"	Table 7.3.3.1	Egress width per occupant @ stairways = 0.3" x 45 = 13.5 " Egress width capacity = 0.2" per occupant @ level components & ramps .2 x 45 = 9"	40" min. clear (32" min. clear between handrails)
	1009.1	Exception 1. Stairways serving an Occupant Load of < 50 shall have a width of not less than 36"	7.2.2.2.1.2	OCC Load < 50: 36" min clear (allowing 4-1/2" obstructions at or below handrail	
	1010.1.1	Minimum door opening width = 32" clear	7.2.1.2.3	Minimum door opening width = 32" clear	Typ. = 36" Doors = 34" net clear opening
	Table 1017.2	Exit access travel ≤ 300'	38.2.6.2	Length of travel to an exit < 200'	93' Travel from second floor to exterior +67' = 160'
	1020.4	Dead ends < 50' (Sprinklered)	38.2.5.2.1	Dead ends < 50' (sprinklered)	No dead ends proposed
	Tacle 1006.2.1	Common path of travel ≤ 100' (sprinklered)	38.2.5.3.1	Common path of travel ≤ 100' (sprinklered)	67' Travel from most remote second floor area to stairs door
	Table 1020.2	Minimum corridor width = 36" clear	7.3.4.1	Minimum corridor width = 36" clear	No corridor conditions proposed
	Table 1006.2.1	Single means of egress permitted with less than 49 occupants and 100'	38.2.4.1	Minimum number of exits = 2	Two exits provided

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	1007.1.1	Where two exits are required, they shall be separated by 1/3 the length of the diagonal of the area served (sprinkled).	7.5.1.3.5	Allows for existing buildings to be exempt from the minimum separation requirement	Existing exits are more than than 1/2 the building distance apart
Emergency Lighting	1008.2	Emergency lighting is required	38.2.9.1	Emergenct Lighting is required	Provided
	1013.1	Exit Signs are required	7.10.1.2	Exit Signs are required except at main exterior exit doors	Illuminated signage exists: Tactile Signage should be added
Fire Suppression Systems	903.2 > 903.2.7	No sprinkler system required	38.3.5.1	No sprinkler system required	Existing sprinkler system shall be modified to provide complete coverage
Standpipes	905.3	Standpipes are not required			No standpipe provided
Fire Alarm Systems	907.2.2	Automatic Fire Alarm System is not required - (assumes first floor occupancy of less than 400)	38.3.4.1	Fire alarm is required	Existing fire alarm will be retained
Smoke Detectors	907.2.2	There is no requirement for smoke alarms	38.3.4 > 9.6.2.10	Smoke alarms not required	No smoke alarms will be provided
Extinguishment requirements	906	Portable fire extinguishers shall be installed as per NFPA 10 (IFC 2009)	38.3.5.3	Portable fire extinguishers required	Two Fire Extinguishers are installed in the space