Code Review

Apr 5, 2016

Residences at 107 India Street

	IBC 2009		NFPA 101 2009	
4 floors above grade	502.1			
Sprinklers		NFPA 13		NFPA 13
Fire Alarm		Monitored Fire Alarm Required		Monitored Fire Alarm Required
Smoke and CO Detectors		Smoke and CO detectors required		Smoke and CO detectors required
	T 1004.1.1	Basement = 1,215 sf accessory to residential (200 gsf/occ) = 8		
		Floor 1 = 1,450 sf Residential (200 gsf/oc) = 8	7.3.1.2	Floor 1 = 1,450 sf Residential (200 gsf/oc) = 8
		Floor 2 = 1,450 sf Residential (200 gsf/oc) = 8		Floor 2 = 1,450 sf Residential (200 gsf/oc) = 8
		Floor 3 = 1,434 sf Residential (200 gsf/oc) = 8		Floor 3 = 1,434 sf Residential (200 gsf/oc) = 8
		Floor 4 = 1,434 sf Residential (200 gsf/oc) = 8		Floor 4 = 1,434 sf Residential (200 gsf/oc) = 8
		Total Building Occupant Load = 32		**Total Building Occupant Load = 32**
Use Group(s)	310.1	Apartments (R2)	6.1.8.1.5	Apartment Building
Const. Type	T 503	3B - mixed - combustible unprotected		III (000) mixed - combustible unprotected
Building Height	T 503	55‘ 4 stories		
Building Area	T 503	16,000 sf max per floor		
Building Elements	T 601	0 hr Structural Frame	30.1.6	No Minimum Construction requirements
	T 602	2 hr Bearing Walls Exterior		
		The building is 28’-2” from the North Property Line - 1hr		
		The building is 0’-0” from the West Property Line - 1hr		
		The building is 25’-0” from the South center of street - 1hr		
		The building is 13’-4” from the East Property Line - 1hr		
	T 601	0 hr Bearing Walls Interior		
	T 601	0 hr Non-Bearing Walls Interior		
	T 602	1 hr Non-Bearing Walls Exterior (sep. dist <10’)		

	705.5	Exterior Wall with >10’ sep. needs rating only from inside		
	T 601	0 hr Floor Construction (1hr between units)		
	T 601	0 hr Roof Construction		
Separations	T 508.4	Basement is 1 hr fire separated from residential unit above		
	708	2 hr Mechanical Shaft >= 4 stories		
	708	1 hr Mechanical Shaft < 4 stories		
	1022.1	1 hr Stair Shaft < 4 stories		
	709.1	1 hr Between Dwelling Units		
	1018.1	1/2 hr Corridor	30.3.6.1.2	1/2 hr corridor
	508.2.5	1 hr Boiler Room	30.3.2.1.1	1 hr Boiler Room
	508.2.5	1 hr Trash Room	30.3.2.1.1	1 hr Trash Room
	508.2.5	1 hr Storage Room	30.3.2.1.1	1 hr Storage Room
	508.2.5	1 hr Laundry Room	30.3.2.1.1	1 hr Laundry Room
	3006.4	2 hr Elevator Machine Room		
	715.4	60 minute Stairwell Doors (1hr shaft)		
	715.4	20 minute Apartment Entry Doors (1/2 hr corridor wall)	30.3.6.2.1	20 minute Apartment Entry Doors
Distances and Exits	1021.1	Table 1021.2 Stories with One Exit		
		1 means of egress with 20 max. occupants and sprinkler system	30.2.4.4	1 means of egress, 1hr exit stair, separate basement
		and 50’ max travel distance within unit		stair, sprinkler system, 4 stories or less
		need egress windows		less than 4 units per floor
		First floor unit travel distance to exit = 28’-4”		
		Second floor unit travel distance to exit = 44’-4”		
		Third floor unit travel distance to exit = 49’-6”		
		Egress path and Travel distance within Basement remains in same layout and distance as the existing condition		
	1016.1 (1021.1)	50’ Travel Distance to exit per single means of egress 1021.1	30.2.6.3.2	200’ Travel distance from apt. door to exit
		Proposed building has a max 49’-6” travel distance at third floor unit		
	1014	MUBEC references Table A7.6 in NFPA with a 50’ common path	30.2.5.3.2	50’ Common Path of Travel
		Proposed building has maximum 49’-6” common path		
	1018.4	50‘ Dead End	30.2.5.4.2	50‘ Dead End
		Proposed building has maximum 49’-6” dead end		
			30.2.6.2	125’ Travel Distance within Dwelling to Corridor
Unprotected Openings	T 705.8	Existing openings to remain		

Egress Windows		Required per 1021.1 single means of egress		
Egress Stairs			24.2.5.4	36” min. stair width
	1009.1	Occ. Load <=50 = 36” min width	7.2.2.2.1.2(B)	44” min. over 50 occ.
	1003.3	Handrails can protrude into stair 4.5” max	7.2.2.2.1.2	Handrails can protrude into stair 4.5” max
	1005.2	Door Swings may not reduce egress width by > 1/2		
	1009.2	80” min headroom	7.2.2.2.1.1(a)	6’-8” min. headroom
	1009.3	7” max. riser	7.2.2.2.1.1(a)	7” max. riser
	1009.3	11” min Tread depth	7.2.2.2.1.1(a)	11” min. tread
	1009.6	12’ max. total rise between floors or landings	7.2.2.2.1.1(a)	12’ max. height between landings
Egress Corridors				
	1018.2	36” min. when Occ. <= 50		
	1018.2	24” min. at service corridors to mechanical equipment		
Sound	1207.2	STC > 50 at walls and floors/ceilings		
	1207.3	IIC > 50 at walls and floors/ceilings		
Energy IECC 2006	T 402.1.1	0.35 Fenestration U-Factor		
Zone 6		Cathedral Ceiling - We will insulate to the depth of existing joists		
		Proposed Ceiling is R-45		
Residential		R-19 Mass Wall		
		Proposed exterior wall is R-19		
		R-30 Floor		
		Proposed Floor over garage is R-30		
		R-19 Basement wall		
		Proposed basement wall is R-19		
Accessibility	The project does not have to comply with the federal Fair Housing Act design and construction requirements,			
	because the regulations only apply to new construction, not renovations.			
	Maine Human Rights Act regulation is the same <u>except</u> it has a different definition of new construction.			
	The cost of the renovation is $550,000 the replacement value after construction is $1,100,000 thus 50% which is less than 75% and considered a renovation			
	Thus the Maine Human Rights Act does not apply			
	$550,000 is the correct value			
	-*New construction* includes, but is not limited to, the design and construction of facilities for first occupancy or an alteration			

			if the cost of the alteration is 75% or more of the replacement cost of the completed facility.			
			Vertical access (elevator will not be required).			
			The project is under the 75% and therefore there are no access requirements.			