

Code Review

Jan 27, 2016

Bayside Bowl Addition

IBC 2009

NFPA 101 2009

2 floors above grade

502.1

Sprinklers

NFPA 13

NFPA 13

NFPA 72 - Fire alarm Notification System

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Occupant Load

T 1004.1.1 (1st fl.)

A-3 Bowling area = 5 per lane = 40 occ.

7.3.1.2

A-3 Bowling area = 5 per lane = 40 occ.

A-2 Restaurant tables and chairs = (2,690 sf / 15 occ. = 179 occ.

A-2 Rest. t c = (2,690 sf / 15 occ. = 179 occ.

Storage = 2229 sf / 500 = 5 occ.

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A-2 Function Room = 685 sf / 15 = 46 occ.

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T 1004.1.1 (mezz)

A-2 Restaurant tables and chairs = (2,565 sf / 15 occ. = 171 occ.

A-2 Rest. t c = (2,565 sf / 15 occ. = 171 occ.

T 1004.1.1 (roof)

Assembly 2,032 sf / 15 = 136 occ.

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TOTAL NEW**577 occupants****TOTAL NEW 577 occupants**

EXISTING Bldg.

A-3 Bowling area = 5 per lane = 60 occ.

7.3.1.2

A-3 Bowling area = 5 per lane = 60 occ.

A-2 standing = (1325 sf / 7 occ. = 190 occ.

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A-2 Restaurant tables and chairs = (595 sf / 15 occ. = 40 occ.

A-2 Rest. t and c = (595 sf / 15 occ. = 40 occ.

Kitchen 590 sf / 200 = 3 occ.

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A-2 Function Room = 685 sf / 15 = 46 occ.

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Office = 473 sf / 100 = 5 occ.

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Storage = 1,392 sf / 500 = 3 occ.

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TOTAL EXISTING**347 occupants****TOT. EXIST****347 occupants****TOTAL BUILDING****924 Occupants****TOT. BUILD.****924 Occupants**

Use Group(s)

304.1

A-3 Assembly (Bowling Alley)

12

Assembly (Restaurant, Bowling)

A-2 Restaurant

Construction Type	T 503	2B - Non combustible unprotected			2 stories of assembly - II (000)
				12.1.6	II (000) allows Assembly on 2nd story if
Building Area	T 503	A3 and A2 - 9,500 sf, 2 stories, 55' high			second story has an occupancy of less than 300
	506.3	Sprinkler Increase 200% = 19000 sf			in a sprinklered building
	504.2	Sprinkler Increase 1 story and 20' = 3 stories and 75'			
Mezzanine	505	Not a Story - 1/3 area max. of floor below -		4.6.4 (4)	A mezzanine shall not be counted as a story
				NFPA 220	
Building Elements	T 601	0 hr Structural Frame		8.2.1.2	0 hr Structural Frame
	T 601	0 hr Bearing Walls Exterior			0 hr Bearing Walls Exterior
	T 601	0 hr Bearing Walls Interior			0 hr Bearing Walls Interior
	T 601	0 hr Non-Bearing Walls Interior			0 hr Non-Bearing Walls Interior
	T 602	1 hr Exterior Walls (sep. dist <10')			0 hr Non-Bearing Walls Exterior
	T 601	0 hr Floor Construction			0 hr Floor Construction
	T 601	0 hr Roof Construction			0 hr Roof Construction
Separations		Separated Buildings - Fire Walls - structurally independent		8.2.1.3	Considered Separate Bldgs with 2 hr FireBarrier
	706.4	New bldg 2B separated from Existing Bldg 3B with a 2 hr fire wall (3hrs reduced to 2hrs) in type II buildings			
Distances to Exits	1016.1	A - 250' Travel Distance to exits (with sprinklers)		12.2.6.2	250' Travel Distance to exits with Sprinklers
	1014.3	A - 75' Common Path of Travel with sprinkler		12.2.5.1.2	75' Common Path of Travel occ under 50
	1018.4	A - 20' Dead End		12.2.5.1.3	20' dead end corridor
Egress Width	1005.1	347 Occ. x 0.2) = 69.4 inches, 2 doors 34.7" minimum each			
Egress Stairs	1009.1	Occ. Load >50 = 44" min 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
Ramps	1010.2	1:12 (8%) Max slope		7.2.5.2(a)	1:12 max. slope

		1010.6	60" long landings at top and bottom		
		1010.6	2% max slope of landings	7.2.5.2(a)	1:48 max. cross slope
		1010.8	>6" rise must have handrails on both sides of ramp		
Egress Corridors		1018.2	44" min. when Occ. > 50		44" min. Hallway width
		1018.2	36" min. when Occ. <= 50		
		1018.2	24" min. at service corridors to mechanical equipment		
Plumbing Requirements					
Restaurants and Pubs		924 occ = 462 men and 462 women			
		Toilets = Male 3 per 151-300 occ. plus 1 per 200 additional = 4 toilets			
		Urinal = Male 1 per 150 occ. plus 1 per 150 additional = 4 Urinals			
		Lavatory = Male 3 per 201-400 occ. plus 1 per 400 additional = 4 Lavatories			
		Toilets = Female 4 per 151-300 occ. plus 1 per 200 additional = 5 toilets			
		Lavatory = Female 3 per 201-400 occ. plus 1 per 400 additional = 4 Lavatories			
IECC					
Commercial		T 502.1.1	0.35 Fenestration U-Factor		
			R-20c Ceiling entirely above deck		
			R-38 Ceiling at Attic and other		
			R-13+7.5c Metal Framed wall		
			R-30 Floor		
			R-7.5c Basement wall		
			R-10 to 4ft Slab		
			U 0.45 Storefront		
			U 0.70 Entrance Door		
			U 0.55 Other		