



Department of Building & Fire Prevention

4701 West Russell Road • Las Vegas NV 89118

(702) 455-3000 • Fax (702) 221-0630

Division:	Building Division – Plans Examination	Code Interpretation	BP-CI-033
Subject:	ACCESSORY ASSEMBLY SPACES/ MINIMUM PLUMBING FIXTURES	Effective Date:	07/10/2009
Code:	IBC 303.1, 508.3.1, 1004.1, 2902.1/Table 2902.1	Revised Date:	

A. CODE REQUIREMENT

Section 2902.1 of the International Building Code (IBC) requires that Chapter Three (Use and Occupancy Classification) of the IBC be used in determining the minimum number of plumbing fixtures for a building or building space.

B. INTERPRETATION

The intent of IBC, Section 2902.1 is to utilize all applicable IBC code requirements to determine the appropriate type of occupancy, the total building design occupant load and the minimum required plumbing fixtures.

In Section 303.1 Assembly Group A, Exceptions 2 and 3, both state that rooms or spaces used for assembly purposes which are less than 750 SF, have an occupant load of less than 50 and are accessory to the main occupancy, shall be classified as Group B occupancy or as part of the main occupancy.

IBC Section 508.3.1 limits the aggregate accessory (subsidiary) occupancies to no more than 10 percent of the total area of the story in which they are located.

Furthermore, IBC Section 508.3.1, Exception 1, states accessory assembly areas which are less than 750 SF to not be considered as a separate occupancy, regardless of the percentage of the floor area they may occupy.

Therefore, whenever this criterion has been satisfied, the building shall be considered as a “single occupancy” and not a “mixed-use occupancy” in determining the maximum allowable building area, maximum allowable height, design occupant load and the minimum required plumbing fixtures.

All large assembly accessory spaces (exceeding 750 SF) must meet the required egress capacity requirements.

If the total area of these large assembly accessory spaces exceeds 10% of the floor area of the story in which they are located, then the building must be designed as a mixed-use building.

C. RATIONALE

This interpretation is necessary to clarify how to properly apply Section 303.1, 508.3.1, 1004.1 and Table 2902.1, for “single occupancy” buildings which may contain accessory assembly areas. These typical accessory assembly areas include public lobbies, reception areas, conference rooms, meeting rooms, break rooms, exterior patio areas and others.

While an occupant load factor for an accessory assembly space may utilize a smaller allowable floor area per occupant in determining the total egress capacity, it does preclude using the appropriate use factors in Table 1004.1.1 and Table 2902.1 for the entire building, including the accessory assembly spaces, if the building is indeed considered a single occupancy structure, per

Division:	Building Division – Plans Examination	Code Interpretation	BP-CI-033
Subject:	MINIMUM PLUMBING FACILITIES	Effective Date:	07/10/2009
Code:	IBC 2902.1/Table 2902.1	Revised Date:	

Section 303.1 and 508.3.1.

Also, per Section 1004.1.1, the Building Official may also approve actual number of occupants for whom each occupied space, floor or building is designed, although less than those determined by calculation, as an alternate method, in determining design occupant load.

Example #1:

A 25,000 SF 2-story office building with a common entry lobby and four (4) tenant suites on each floor. The common entry lobby is 700 SF on the first floor and 150 SF on the second floor. Within each of the tenant spaces there is a 749 SF conference room, a 500 SF break room and a lobby/reception area of 200 SF. What is the total design occupant load? What is the minimum number of plumbing fixtures?

Answer:

Since none of the accessory assembly areas exceed 750 SF, this entire building is considered a “B” occupancy having a total design occupant load of 250. (25,000/100) (Table 1004.1)

Per Table 2902.1 and 2902.3, for a “B” occupancy having a design occupant load of 250, the building requires 3 water closets for men, 3 water closets for women, 3 lavatories for men, 3 lavatories for women, 3 drinking fountains and 1 service sink.

Example #2:

A 50,000 SF 2-story office building with a common entry lobby and three (3) tenant suites on each floor. The common entry lobby each floor is 650 SF. Within each of the tenant spaces there is a 650 SF conference room and an 800 SF break room and a 250 SF lobby/reception area. What is the design occupant load? Are there any special considerations? What is the minimum number of plumbing fixtures?

Answer:

The only accessory assembly spaces (greater than 750 SF) are the break rooms. There are (3) 800 SF break rooms per floor; therefore the total aggregate area of the accessory assembly spaces is 2,400 SF/per floor. (3 x 800)

The entire floor area of each story is 25,000 SF. The total aggregate area of the accessory assembly spaces is still less than 10% (2,400/25,000 SF) of the floor area in which they are located; therefore, this entire building is considered a “B” occupancy, having a total design occupant load of 500. (50,000/100)

However, the break rooms must have a minimum of two (2) exit access doors having a total egress capacity for 54 occupants, per Table 1004.1. (800/15)

Per Table 2902.1 and 2902.3, for a “B” occupancy having a design occupant load of 500, the building requires 6 water closets for men, 6 water closets for women, 4 lavatories for men, 4 lavatories for women, 5 drinking fountains and 1 service sink.

Example #3:

A 60,000 SF 3-story office building with a common entry lobby and four (4) tenant suites on each floor. The common entry lobby each floor is 650 SF. Within each of the tenant spaces there is a 700 SF conference room, an 800 SF break room and a 250 SF lobby/reception area. What is the design occupant load? Are there any special considerations? What is the minimum number of plumbing fixtures?

Division:	Building Division – Plans Examination	Code Interpretation	BP-CI-033
Subject:	MINIMUM PLUMBING FACILITIES	Effective Date:	07/10/2009
Code:	IBC 2902.1/Table 2902.1	Revised Date:	

Answer:

The total accessory assembly spaces per floor consist of (4) break rooms (800 SF each) for a total area of 3,200 SF. This exceeds 10% (3,200/20,000) of the floor area in which they are located; therefore, this building would be considered a mixed-use building, as follows:

Total “B” occupancy area is 16,800 SF (20,000-3200) per floor x 3 floors = 50,400 SF

Total “A-2” occupancy area is 3,200 SF per floor x 3 floors = 9,600 SF

Total “B” occupant load is 50,400/100 = 504

Total “A-2” occupant load is 9,600/15 = 640

The total design occupant load is 1144.

Each floor requires two (2) exits and each break room requires (2) exit access doors with an egress capacity of 54 (800/15) each.

Per Table 2902.1 and 2902.3, for the “B” occupancy, having an occupant load of 504, the “B” portion of the building requires 6.42 water closets, 4.39 lavatories each for males and females, 5.04 drinking fountains and 1 service sink; for the “A-2” occupancy, having an occupant load of 640, the “A-2” portion of the building requires 4.39 water closets, 1.6 lavatories each for males and females, 1.28 drinking fountains and 1 service sink.

The total required plumbing fixtures evenly distributed is 11 water closets for men, 11 water closets for women, 6 lavatories for men, 6 lavatories for women, 7 drinking fountains and 1 service sink.

Revision History:

POLICY #	TITLE	Effective Date	Revised	Reviewed
BP-CI-033	Minimum Plumbing Facilities	July 10, 2009	New	

Approved by:

Ronald L. Lynn, Director

Concurred by:

Gregory J. Franklin, Assistant Director