

Table A.7.3.1.2 Airport Terminal Occupant Load Factors

Airport Terminal Area	ft ² (gross)	m ² (gross)
Concourse	100	9.3
Waiting areas	15	1.4
Baggage claim	20	1.9
Baggage handling	300	27.9

The figure used in determining the occupancy load for small shopping centers of varying sizes was arrived at empirically by surveying over 270 mall shopping centers, by studying mercantile occupancy parking requirements, and by observing the number of occupants per vehicle during peak seasons.

These studies show that, with an increase in shopping center size, there is a decrease in the number of occupants per square foot of gross leasable area.

This phenomenon is explained when one considers that, above a certain shopping center gross leasable area [approximately 600,000 ft² (56,000 m²)], there exists a multiplicity of the same types of stores. The purpose of duplicate types of stores is to increase the choices available to a customer for any given type of merchandise. Therefore, when shopping center size increases, the occupant load increases as well, but at a declining rate. In using Figure 7.3.1.2(a) or Figure 7.3.1.2(b), the occupant load factor is applied only to the gross leasable area that uses the mall as a means of egress.

The occupant load factor, as a density factor, assumes the presence of at least one person for each specified unit of area. Note that some values are for net area, while others are based on gross area. The gross area figure applies to the building as a whole (the area within the confining perimeter walls of the building, theater-type seating).

Occupant load is determined by the nature of the use of a building or space and the amount of space available for that use. Since different generic uses are characterized by different occupant densities, Table 7.3.1.2 has established occupant load factors for each use. The first column of the table is deliberately headed "use" rather than "occupancy," because the use of an area might differ from its occupancy classification. For example, a meeting room for fewer than 50 people in an office building is not an assembly occupancy; it is a business occupancy [see 6.1.14.1.3(2)], but its occupant load is based on an assembly use. The same concept applies to a classroom in a university, which, although classified as a business occupancy, has an occupant load based on educational use (for traditional classroom style) or assembly use (for lecture style with theater-type seating).

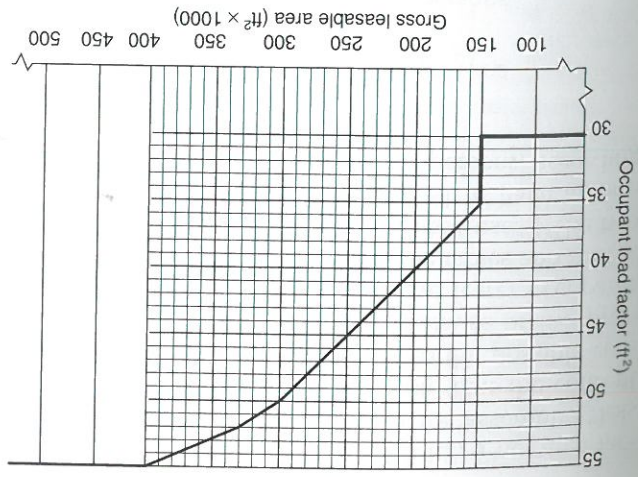


Figure 7.3.1.2(a) Mall Building Occupant Load Factors (U.S. Customary Units).

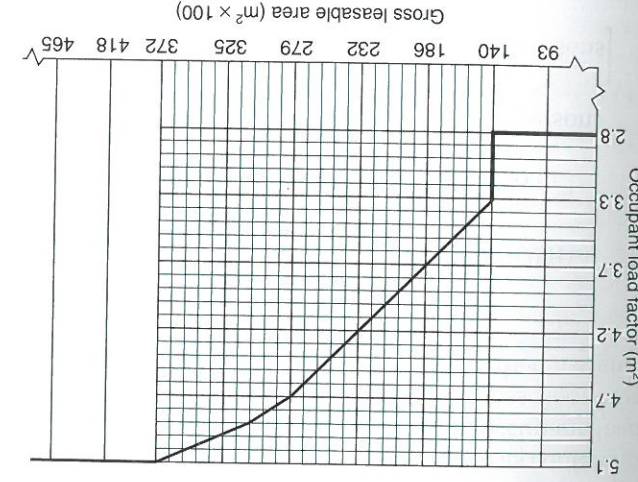


Figure 7.3.1.2(b) Mall Building Occupant Load Factors (SI Units).

A.7.3.1.2 The normal occupant load is not necessarily a suitable criterion, because the greatest hazard can occur when an unusually large crowd is present, which is a condition often difficult for authorities having jurisdiction to control by regulatory measures. The principle of this Code is to provide means of egress for the maximum probable number of occupants, rather than to attempt to limit occupants to a number commensurate with available means of egress. However, limits of occupancy are specified in certain special cases for other reasons. Suggested occupant load factors for components of large airport terminal buildings are given in Table A.7.3.1.2. However, the authority having jurisdiction might elect to use different occupant load factors, provided that egress requirements are satisfied.

Table 7.3.1.2 Occupant Load Factor

Use	(ft ² per person) ^a	(m ² per person) ^b
Assembly Use	7 net	0.65 net
Concentrated use, without fixed seating	15 net	1.4 net
Bench-type seating	1 person/18 linear in.	1 person/455 linear mm
Fixed seating	Number of fixed seats	Number of fixed seats
Waiting spaces	Sec 12.1.7.2 and 13.1.7.2.	Sec 12.1.7.2 and 13.1.7.2.
Kitchens	100	9.3
Library stack areas	100	9.3
Library reading rooms	50 net	4.6 net
Swimming pools	50 (water surface)	4.6 (water surface)
Swimming pool decks	30	2.8
Exercise rooms without equipment	50	4.6
Exercise rooms with equipment	15	1.4
Stages	15 net	1.4 net
Lighting and access catwalks, galleries, gridirons	100 net	9.3 net
Casinos and similar gaming areas	11	1
Skating rinks	50	4.6
Educational Use	20 net	1.9 net
Classrooms	50 net	4.6 net
Shops, laboratories, vocational rooms	35 net	3.3 net
Day-Care Use	240	22.3
Inpatient treatment departments	120	11.1
Sleeping departments	100	9.3
Ambulatory health care	120	11.1
Dentition and Correctional Use	200	18.6
Hotels and dormitories	200	18.6
Apartment buildings	200	18.6
Board and care, large	100	9.3
General and high hazard industrial	100	9.3
Special-purpose industrial	NA	NA
Business Use (other than below)	40	3.7
Air traffic control tower observation levels	NA	NA
Storage Use	300	27.9
In mercantile occupancies	500	46.5
In other than storage and mercantile occupancies	30	2.8
Sales area on street floor ^c	40	3.7
Sales area on two or more street floors ^c	30	2.8
Sales area on floor below street floor ^c	40	3.7
Sales area on floor above street floor ^c	30	2.8
Floors or portions of floors used only for offices	60	5.6
Floors or portions of floors used only for storage, receiving, and shipping, and not open to general public	300	27.9
Mall buildings ^d	Per factors applicable to use of space ^e	Per factors applicable to use of space ^e
Assembly Use	Less concentrated use, without fixed seating	Concentrated use, without fixed seating
Assembly Use	Concentrated use, without fixed seating	Concentrated use, without fixed seating
Assembly Use	Less concentrated use, without fixed seating	Less concentrated use, without fixed seating
Assembly Use	Bench-type seating	Bench-type seating
Assembly Use	Fixed seating	Fixed seating
Assembly Use	Waiting spaces	Waiting spaces
Assembly Use	Kitchens	Kitchens
Assembly Use	Library stack areas	Library stack areas
Assembly Use	Library reading rooms	Library reading rooms
Assembly Use	Swimming pools	Swimming pools
Assembly Use	Swimming pool decks	Swimming pool decks
Assembly Use	Exercise rooms without equipment	Exercise rooms without equipment
Assembly Use	Exercise rooms with equipment	Exercise rooms with equipment
Assembly Use	Stages	Stages
Assembly Use	Lighting and access catwalks, galleries, gridirons	Lighting and access catwalks, galleries, gridirons
Assembly Use	Casinos and similar gaming areas	Casinos and similar gaming areas
Assembly Use	Skating rinks	Skating rinks
Assembly Use	Educational Use	Educational Use
Assembly Use	Classrooms	Classrooms
Assembly Use	Shops, laboratories, vocational rooms	Shops, laboratories, vocational rooms
Assembly Use	Day-Care Use	Day-Care Use
Assembly Use	Health Care Use	Health Care Use
Assembly Use	Inpatient treatment departments	Inpatient treatment departments
Assembly Use	Sleeping departments	Sleeping departments
Assembly Use	Ambulatory health care	Ambulatory health care
Assembly Use	Dentition and Correctional Use	Dentition and Correctional Use
Assembly Use	Hotels and dormitories	Hotels and dormitories
Assembly Use	Apartment buildings	Apartment buildings
Assembly Use	Board and care, large	Board and care, large
Assembly Use	General and high hazard industrial	General and high hazard industrial
Assembly Use	Special-purpose industrial	Special-purpose industrial
Assembly Use	Business Use (other than below)	Business Use (other than below)
Assembly Use	Air traffic control tower observation levels	Air traffic control tower observation levels
Assembly Use	Storage Use	Storage Use
Assembly Use	In storage occupancies	In storage occupancies
Assembly Use	In mercantile occupancies	In mercantile occupancies
Assembly Use	In other than storage and mercantile occupancies	In other than storage and mercantile occupancies
Assembly Use	Sales area on street floor ^c	Sales area on street floor ^c
Assembly Use	Sales area on two or more street floors ^c	Sales area on two or more street floors ^c
Assembly Use	Sales area on floor below street floor ^c	Sales area on floor below street floor ^c
Assembly Use	Sales area on floor above street floor ^c	Sales area on floor above street floor ^c
Assembly Use	Floors or portions of floors used only for offices	Floors or portions of floors used only for offices
Assembly Use	Floors or portions of floors used only for storage, receiving, and shipping, and not open to general public	Floors or portions of floors used only for storage, receiving, and shipping, and not open to general public
Assembly Use	Mall buildings ^d	Mall buildings ^d
Assembly Use	Each individual tenant space is required to have means of egress independent of the mall.	Each individual tenant space is required to have means of egress independent of the mall.
Assembly Use	Each individual tenant space is required to have means of egress to the outside or to the mall based on occupant loads calculated by using the appropriate occupant load factor from Table 7.3.1.2.	Each individual tenant space is required to have means of egress to the outside or to the mall based on occupant loads calculated by using the appropriate occupant load factor from Table 7.3.1.2.
Assembly Use	The portions of the mall that are considered a pedestrian way and not used as gross leasable area are not required to be assessed an occupant load based on Table 7.3.1.2. However, means of egress from a mall pedestrian way are required to be provided for an occupant load determined by dividing the gross leasable area of the mall building (not including anchor stores) by the appropriate lowest number occupant load factor from Figure 7.3.1.2(a) or Figure 7.3.1.2(b).	The portions of the mall that are considered a pedestrian way and not used as gross leasable area are not required to be assessed an occupant load based on Table 7.3.1.2. However, means of egress from a mall pedestrian way are required to be provided for an occupant load determined by dividing the gross leasable area of the mall building (not including anchor stores) by the appropriate lowest number occupant load factor from Figure 7.3.1.2(a) or Figure 7.3.1.2(b).
Assembly Use	For any food court or other assembly use areas located in the mall that are not included as a portion of the gross leasable area of the mall building, the occupant load is calculated based on the occupant load factor for that use as specified in Table 7.3.1.2. The remaining mall area is not required to be assigned an occupant load.	For any food court or other assembly use areas located in the mall that are not included as a portion of the gross leasable area of the mall building, the occupant load is calculated based on the occupant load factor for that use as specified in Table 7.3.1.2. The remaining mall area is not required to be assigned an occupant load.
Assembly Use	For the purpose of determining occupant load in mercantile occupancies where, due to differences in the finished ground level of streets on different sides, two or more floors directly accessible from streets (not including alleys or similar back streets) exist, each such floor is permitted to be considered a street floor. The occupant load factor is one person for each 40 ft ² (3.7 m ²) of gross floor area of sales space.	For the purpose of determining occupant load in mercantile occupancies where, due to differences in the finished ground level of streets on different sides, two or more floors directly accessible from streets (not including alleys or similar back streets) exist, each such floor is permitted to be considered a street floor. The occupant load factor is one person for each 40 ft ² (3.7 m ²) of gross floor area of sales space.
Assembly Use	For the purpose of determining occupant load in mercantile occupancies with no street floor, as defined in 3.3.253, but with access directly from the street by stairs or escalators, the floor at the point of entrance to the mercantile occupancy is considered the street floor.	For the purpose of determining occupant load in mercantile occupancies with no street floor, as defined in 3.3.253, but with access directly from the street by stairs or escalators, the floor at the point of entrance to the mercantile occupancy is considered the street floor.
Assembly Use	For the purpose of determining occupant load in mercantile occupancies where, due to differences in the finished ground level of streets on different sides, two or more floors directly accessible from streets (not including alleys or similar back streets) exist, each such floor is permitted to be considered a street floor. The occupant load factor is one person for each 40 ft ² (3.7 m ²) of gross floor area of sales space.	For the purpose of determining occupant load in mercantile occupancies where, due to differences in the finished ground level of streets on different sides, two or more floors directly accessible from streets (not including alleys or similar back streets) exist, each such floor is permitted to be considered a street floor. The occupant load factor is one person for each 40 ft ² (3.7 m ²) of gross floor area of sales space.
Assembly Use	All factors are expressed in gross area unless marked "net."	All factors are expressed in gross area unless marked "net."
Assembly Use	NA: Not applicable. The occupant load is the maximum probable number of occupants present at any time.	NA: Not applicable. The occupant load is the maximum probable number of occupants present at any time.