WHAT IS AN OCCUPANT LOAD FACTOR?

INTRODUCTION TO OCCUPANT LOAD SERIES BY MEYERFIRE UNIVERSITY | JANUARY 2023

SUMMARY

An **Occupant Load Factor** is a number that represents a **density of occupants** that **could reasonably be present** in a room or space. It is a classification that best matches the intended use for a building, a room, or a space.

- Occupant Load Factors are useful because they do not depend on a specific furniture arrangement. They hold some flexibility for future use.
- Drawbacks to using Occupant Load Factors are that there is not an infinite amount of uses listed, and they can sometimes be outdated.

Gross versus Net Area

- Occupant Load Factors which use **Gross Area** should include all areas within the exterior wall for the occupant load calculation.
- Occupant Load Factors which use **Net Area** should not include normally unoccupied or transient areas, like corridors, restrooms, storage rooms, elevators, stairs, shafts, and mechanical or electrical rooms.

Why Not Count Chairs?

- If furniture is fixed-in-place (bolted to the floor), then that's used for Assembly Occupant Loads.
- In all other cases, Occupant Load Factors are not based on an exact furniture arrangement, but the number of seats can provide a reasonable "gut-check" for what an appropriate occupant load factor should be, at a minimum. If the seat count is higher than the occupant load, then a higher-density Occupant Load Factor should be used.

Gross Area
(All spaces are used in the area calculation to determine an occupant load)

Net Area
(Normally unoccupied and transient spaces are not included in the calculation)

CODE/STANDARD REFERENCES

IBC – 2021: Table 1004.5 Occupant Load Factors
NFPA 101 – 2021: Table 7.3.1.2 Occupant Load Factors

VIDEO LINK

www.meyerfire.com/university/what-is-an-occupant-load-factor

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