
K-12 SCHOOL – OCCUPANCY CLASSIFICATION AND OCCUPANT LOAD FACTORS: 2022 CBC

Disciplines: Fire Life Safety

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Division of the State Architect (DSA) documents referenced within this publication are available on the [DSA Forms](#) or [DSA Publications](#) webpages.

PURPOSE

To provide clarification on occupancy classifications and occupant load factors for kindergarten through grade 12 (K-12) school projects under the jurisdiction of the DSA.

BACKGROUND

The building code analysis for the project must reflect the occupancy classifications assigned and justify the construction types and use of areas shown. For the purposes of applying the mixed use and occupancy provisions of Section 508, occupancies may include:

- Accessory uses.
- Non separated uses.
- Separated uses, or
- A combination of the above.
- Incidental uses.

(For definitions of “net” and “gross”, see California Building Code (CBC) Chapter 2)

APPLICATION

Occupancy classification is to be based on CBC Chapter 3, while occupant load will be based on the occupant load factor (OLF) represented in CBC Chapter 10, Table 1004.5 that most nearly resembles the function of the room, area, or space.

1. OCCUPANCY CLASSIFICATION AND OCCUPANT LOAD FACTORS

1.1 General

Regardless of the name assigned to a room or area, rooms or areas shall be classified by the occupancy, use, and function it most nearly resembles in accordance with CBC Chapter 3.

1.2 General Education Classrooms

Rooms used for instruction, shall be classified as a Group “E” occupancy with an occupant load factor of 20 (net) applied. This includes age appropriate kindergarten classrooms designated as Pre-K or Transitional Kindergarten (TK).

1.3 Science Laboratories

Where hazardous processes, or exempt amounts of hazardous materials as identified in the CBC Table 307.1(1) and 307.1(2) are used or stored, the room shall be classified as a Group “E” occupancy, with an occupant load factor of 50 (net) applied.

1.4 The Group “L” occupancy classification for “Laboratories” is applicable to research and

K-12 SCHOOL – OCCUPANCY CLASSIFICATION AND OCCUPANT LOAD FACTORS

development facilities as an optional design approach for multi-story buildings containing multiple laboratories and is not appropriate for public school (K–12) campuses.

1.5 Libraries

Are classified as a Group “A-3” occupancy. The reading areas shall use the occupant load factor of 50 (net) and the book stack areas 100 (gross).

1.6 Shops for Woodworking, Auto, Metal, Welding, and Similar Vocational Uses

Shall be classified as Group “E” occupancies where hazardous materials do not exceed the exempt quantities indicated on Tables 307.1(1) and 307.1(2), with an occupant load factor of 50 (net) applied.

1.7 Consumer Home Economics (food science) Classrooms, Culinary Arts Classrooms and associated Practical Application Laboratories

1.7.1 Classrooms and practical application laboratories in this category consisting of a lecture area with a single instructor workstation for demonstrations, shall be classified as Group ‘E’ with an occupant load factor of 20 applied.

1.7.2 Practical application laboratories containing multiple student workstations with cooking equipment (range and or stove) that reflects current home food preparation practices, shall have an occupant load factor of 50 (net) applied.

1.8 Exercise Rooms

Rooms such as weight rooms, aerobics rooms, and gymnasiums that do not have other uses or spectator seating: The occupancy classification shall be Group “E” occupancy when the occupant is 49 or less persons, and Group “A-3” when occupant load is 50 or more persons. An occupant load factor of 50 (gross) shall be used. See also subsection 1.9 below.

1.9 Locker Rooms

Shall be classified as a Group “E” occupancy with an occupant load factor of 50 (gross) applied.

1.10 Multi-Use Gymnasiums or Rooms

1.10.1 The occupancy classification and occupant load for gymnasiums or assembly rooms proposed with multiple uses (functions) shall be based on the most restrictive use.

1.10.2 Where bleachers (telescoping or fixed) are installed, the occupancy classification shall be Group “A-4”, and the occupant load shall be based on the number of bleacher seats available as determined in accordance with CBC section 1004.6 and ICC-300. The open area(s) beyond the bleachers without fixed seating shall be determined using an occupant load factor of 7 (net).

1.10.3 Multipurpose rooms or areas used for assembly purposes without fixed seats shall be assigned an occupancy classification of Group A-3, with an occupant load factor of 7 (net) applied.

1.10.4 Multipurpose rooms or areas that include a dining function shall be assigned an occupancy classification of Group A-2, with an occupant load factor of 15 (net) applied.

1.10.5 Raised platforms and stages within multipurpose gymnasiums and or rooms shall use an occupant load factor of 15 (net) to determine the occupant load and exiting requirements.

1.11 Kitchens

1.11.1 Kitchens associated with dedicated dining areas shall be classified as part of the Group ‘A-2’ occupancy and have an occupant load factor of 200 (gross) applied.

K-12 SCHOOL – OCCUPANCY CLASSIFICATION AND OCCUPANT LOAD FACTORS

1.12 Theaters and Auditoriums

1.12.1 An occupancy classification of Group “A-1” shall be assigned to theaters and auditoriums for the viewing of performances and or movies where fixed seating is provided. The occupant load shall be determined by the number of fixed seats, inclusive of accessible spaces for wheelchairs.

1.12.2 Auditorium areas without fixed seating shall use an occupant load factor of 7 (net) to determine the occupant load.

1.13 Cafeterias

Dedicated cafeteria buildings or areas shall be classified as a Group “A-2” occupancy and shall have the occupant load calculated in accordance with the following:

- Table and chairs without fixed seats: 15 (net).
- Tables with fixed seats are determined by the number of seats.
- Tables with bench seating: One persons for each 18 inches of seating length.

1.14 Child-Care and Child Development Laboratory Classrooms

1.14.1 Buildings, rooms and or areas used for child-care or child development program laboratory classroom purposes for children 36 months of age or older and meeting the criteria of Section 305.2, shall be classified as a Group “E” occupancy. Where the facility serves children less than 36 months of age, the occupancy shall be classified as Group I-4.

1.14.2 In accordance with the State Fire Marshal’s amendment to CBC Section 305.2, child-care facilities *“where the occupants are not capable of responding to an emergency situation without physical assistance from the staff, shall be classified as a Group ‘I-4 occupancy’.”* Facilities dedicated to children as noted shall also be subject to compliance with CBC Section 436 for exiting and other requirements.

1.14.3 The occupant load factor used to determine the occupant load shall be 35 (net) for both Group “E” Day Care and Group “I-4” occupancies.

1.14.4 In some instances, the DSA plan reviewer may question the group “E” occupancy designation, in which case the architect will be required to obtain a letter from the school district (Superintendent or Facilities Director), to provide more information for the DSA plan reviewer about facility occupants. Information to be provided shall include:

- Age groups.
- Whether custodial or personal care is provided.
- Ability of occupants to evacuate the building unassisted.

1.15 Outdoor Areas – Courts

1.15.1 Outdoor areas, such as courts, shall be classified by the anticipated use it most nearly resembles. The occupant load factor will be assigned on a case-by-case basis in consideration of the proposed use or function.

1.15.2 Courts used as a component of a means of egress, shall be provided with egress capacity determined in accordance with CBC Section 1005.1, but be provided with a minimum width of not less than 44 inches.

1.16 Miscellaneous

K-12 SCHOOL – OCCUPANCY CLASSIFICATION AND OCCUPANT LOAD FACTORS

An occupant load factor of 5 (net) will be applied to the following areas:

- Line or queuing spaces serving ticket booths, concession stands, and food service windows (inside and outside).
- Lobby areas that serve an assembly occupancy that has food or merchandise (or both) for sale.
- Open standing areas in front of seating located around stages or platforms.

REFERENCES:

2022 California Code of Regulations (CCR), Title 24
Part 1, California Administrative Code (CAC), Sections 303 and 304
Part 2, California Building Code (CBC)

This IR is intended for use by the DSA staff and by design professionals to promote statewide consistency for review and approval of plans and specifications as well as construction oversight of projects within the jurisdiction of DSA, which includes State of California public schools (K– 12), community colleges and state-owned or state-leased essential services buildings. This IR indicates an acceptable method for achieving compliance with applicable codes and regulations, although other methods proposed by design professionals may be considered by DSA.

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