



CAL FIRE - OFFICE OF THE STATE FIRE MARSHAL

Code Interpretation 23-01

Issued: February 09, 2023

Laboratories, vocational shops and other such areas not classified as Group H, located in Group E occupancies

OVERVIEW

Code California Fire Code (CFC), California Building Code (CBC)
Section(s): Table 509 Incidental Uses
Edition: 2019 CBC
Requested By: Eric Driever, Principal Architect, Fire Life Safety / DSA
Date Received: June 21, 2022

QUESTIONS & ANSWERS:

Subject: Separation of Incidental Uses – Group E Occupancies (2019 CBC Table 509, SFM Amendment)

Background: The DSA continues to receive questions from design professionals and plans examiners regarding CBC Table 509 for Group E occupancies as to the intent regarding school laboratories, vocational shops, and spaces. This appears to stem from the terms/phrase “Rooms or areas...” which is expressed in the plural inferring multiple rather than the individual (which might be worded as “A room or area...”). Informal opinions from the OSFM and existing code interpretation CI#14-011 do not appear to specifically address the issue of single laboratories versus multiple laboratories.

Question #1: Is the intent of the plural language (Rooms or areas) and phrasing of the SFM amendment to Table 509 to mean that the required 1-hour separation must be constructed around each individual room or area, such as a school laboratory or vocational shop with special hazards or processes? Or,

Answer to Question #1: No. A 1-hour separation is not required between each individual room or area where hazardous materials are stored, and where it is used. The intent of incidental use separation is to separate room(s) or area(s) where hazardous materials exist in quantities that do not exceed the maximum allowable quantity (MAQ) are used or stored from the remainder of the building.

For example, a laboratory in a Group E that is composed of two hazardous materials storage rooms that opens into a lab room or area where such materials are intended to be used, shall be separated from the remainder of the building by one hour fire barrier construction. Because the hazardous materials are stored in rooms within the lab and used within the lab or the lab’s contiguous supporting spaces, no separation is required between these spaces. Therefore, the separation shall be at the perimeter of these spaces.



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Similarly, where an area consists of two separate lab rooms each with its own hazardous materials storage room and lab office, the one-hour separation is at the perimeter of all these spaces. See Figure 1 for an example. The hazard is the same for both the storage room(s), lab room(s), and lab office(s) where the storage and use occurs, so no separation is necessary between these spaces.

Question #2: Since the language and phrasing of the SFM amendment to Table 509 is written in the plural (Rooms or areas), is the intent to mean that the required 1-hour separation is to be constructed around the perimeter of such uses when construction as a cluster side-by-side, each with similar hazards?

Answer to Question #2: Yes. See answer to Question #1.

Question #3: By definition, “Area” may be a space within a room. What is meant or intended by the word “Areas” as referred to in the SFM amendment? Please provide an example of how a room and an area differ.

Answer to Question #3: Webster’s Third New International Dictionary Unabridged edition provides the following relevant definitions for this code section:

AREA:

4b: a definitely bounded part or section of a building set aside for a specific use or purpose

ROOM:

4a: a part of the inside of a building, shelter, or dwelling usually set off by a partition

An example of an “Area” in Figure 1 is the area that includes Lab A and B, along with their respective Lab Offices and Storage rooms. An example of a “room” is a lab, classroom, office, storage, or similar space bounded by partition(s).



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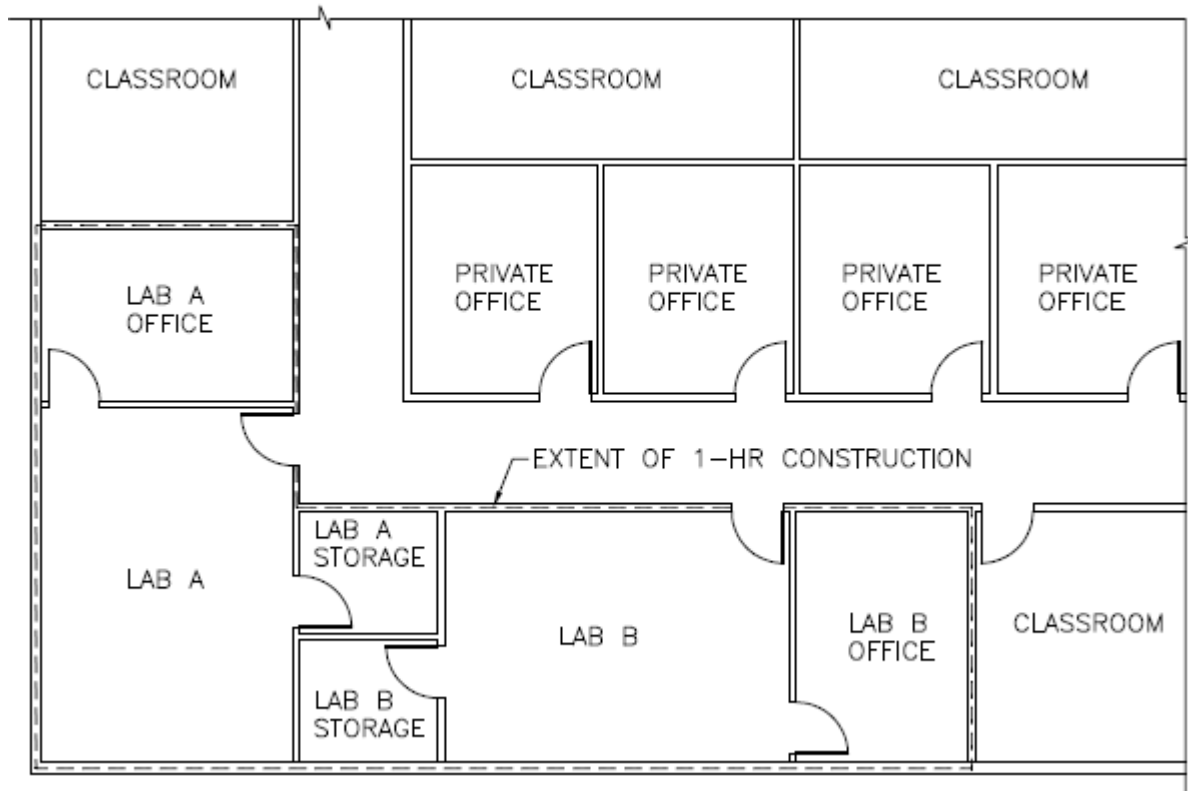


Figure 1: Example Floor Plan – Table 509 Incidental Uses Group E