



MACON-BIBB COUNTY

Department of Business Development Services

200 Cherry Street, Suite 202
Macon, GA 31201

INTERPRETATION # MBC-0002

EFFECTIVE DATE: May 1, 2020

REVISION DATE:

PAGE # 1 of 7 AUTHOR: Don Wilkins, CBO, CFM, MCP

REVISION #:

CODE INTERPRETATION: Design Occupant Load Reduction

1. SCOPE / PURPOSE

- 1.1. Existing buildings may have design limitations that create restrictions in achieving compliance with the prescriptive requirements of our adopted modern construction codes. To overcome these limitations it may become necessary to consider alternate methods to achieve compliance, which maintain or improve the level of life safety within those existing buildings that are unable to comply with the full prescriptive requirements of the 2018 Life Safety Code for egress.
- 1.2. This binding interpretation from Macon-Bibb County is not meant to interpret any amendment or modification found within the Rules and Regulations of the Georgia State Fire Commissioner. Instead this interpretation is meant to provide a level of clarity and consistency for enforcement within this jurisdiction.

2. ADOPTED CODE / DEFINITIONS

2.1. Adopted Code Sections:

- 2.1.1. **2018 Life Safety Code Section 7.3.1.2.1, as modified by the Georgia State Fire Commissioners Rules and Regulations Chapter 120-3-3.04.72(e)4.** Where substantial evidence and documentation is provided, the authority having jurisdiction may decrease the occupant load for some occupancy use areas. The determined occupant load capacity shall be posted at an obvious location indicating the total occupant load capacity.
- 2.1.2. **2018 Life Safety Code Section 3.3.60 Design Team.** A group of stakeholders including, but not limited to, representatives of the architect, client, and any pertinent engineers and other designers.
- 2.1.3. **2018 Life Safety Code Section 3.3.170.2 Occupant Load.** The total number of persons that might occupy a building or portion thereof at any one time.
- 2.1.4. **2018 Life Safety Code Section 3.3.178 Means of Egress.** A continuous and unobstructed way of travel from any point in a building or structure to a public way consisting of three separate and distinct parts: (1) the exit access, (2) the exit, and (3) the exit discharge.



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2.1.5. 2018 Life Safety Code Section 3.3.285 Technically Infeasible. A change to a building that has little likelihood of being accomplished because the existing structural conditions require the removal or alteration of a load-bearing member that is an essential part of the structural frame, or because other existing physical or site constraints prohibit modification or addition of elements, spaces, or features that are in full and strict compliance with applicable requirements.

2.2. Definitions:

2.2.1. Actual Occupant Load is achieved through the submittal of “substantial evidence and documentation” from the principle registered design professional, which shows how the individual tenant utilizes the space versus applying the Occupant Load Factors established within 2018 Life Safety Code Section 7.3.1.2.1, as modified by the Georgia State Fire Commissioner Rules and Regulations Chapter 120-3-3.04.72(e)4.

2.2.2. Design Occupant Load is achieved through the methodology prescribed by 2018 Life Safety Code Section 7.3.1.2. Under this prescriptive method the Occupant Load Factors found in 2018 Life Safety Code Table 7.3.1.2 are utilized to calculate the occupant density based on how the occupants use the area under review.

2.2.3. Substantial Evidence and Documentation is required to support the Actual Occupant Load versus the Design Occupant Load. Examples of “substantial evidence and documentation” may include, but may not be limited to: written testimonial from the tenant explaining staffing levels based on the business use of the space, fixed furniture layout provided on the Life Safety / Egress Plan sheet, a count of the individual chairs supporting the written narrative of the staffing levels, dedicated spaces with dining and/or conference tables, etc.

3. BACKGROUND

3.1. The State of Georgia [Department of Community Affairs](#) adopts and amends codes for enforcement at the local level. As part of this process the 2018 Life Safety Code was adopted as the primary code that regulates the means of egress system within a building or structure.

3.2. Understanding that the prescriptive requirements governing egress have evolved, it is sometimes difficult to apply the current methodology to the Means of Egress system (Section 2.1.4.) within an existing building.



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- 3.3. Within the context of the current prescriptive requirements the process for determining the Design Occupant Load is based on the anticipated occupant density of the various areas under consideration. This is achieved through the application of the prescribed occupant load factors that calculate the occupant density based on the use of the area under review. (See 2018 Life Safety Code Table 7.3.1.2)
- 3.4. The Means of Egress system must be designed to accommodate the worst-case scenario, which is established by the Design Occupant Load. (Section 2.2.2.) During both the design and regulatory review process it is vital to verify that the existing portions of the Means of Egress system complies with this design occupant load.
- 3.5. Within existing buildings, the verification of the egress components for compliance with the Design Occupant Load becomes problematic since these components typically fall under previous codes or design principles that pre-date modern building science and/or code adoption.
- 3.6. Examples of these egress components may be but not limited to: corridors, exit doors and/or exit stairs.
- 3.7. Utilizing 2018 Life Safety Code Section 7.3.1.2.1, as modified by the Georgia State Fire Commissioner Rules and Regulations Chapter 120-3-3.04.72(e)4. Macon-Bibb County, as the authority having jurisdiction may allow a posted reduction (decrease) in the design occupant load, which will allow the other components within the existing building to comply with the present prescriptive requirements.

4. INTREPRETATION / CLARIFICATION

- 4.1. Within existing buildings that are undergoing interior alterations or changes of occupancy, which cannot comply with the prescriptive requirements for the Means of Egress system due to the Design Occupant Load placing a greater demand on the egress components than was originally supported with the building design. The project Design Team may petition the Chief Building Official for Macon-Bibb County in writing for relief under 2018 Life Safety Code Section 7.3.1.2.1, as modified by the Georgia State Fire Commissioner Rules and Regulations Chapter 120-3-3.04.72(e)4, which allows the Occupant Load to be established using the Actual Occupant Load versus the Design Occupant Load.
- 4.2. The petition from the principle registered design professional must be submitted on letterhead and bearing a professional licensing seal. This document must include the following minimum level of information:



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- 4.2.1 Identify the project name and address.
- 4.2.2 Identify the tenant and tenant space address under consideration for the reduction (decrease) in the Design Occupant Load. This is required since the approval is generated for the specific tenant or occupant within the identified space and not for the space in perpetuity. Once the tenant vacates the tenant space, the occupant load reverts back to the prescriptive requirements; however, the incoming tenant may submit a request for approval of the reduction (decrease) in the Design Occupant Load.
- 4.2.3 Provide a brief narrative outlining the project scope of work.
- 4.2.4 Provide the Design Occupant Load, as calculated using 2018 Life Safety Code Section 7.3.1.2 and 2012 Life Safety Code Table 7.3.1.2.
- 4.2.5 Indicate the Actual Occupant Load.
- 4.2.6 Provide “substantial evidence and documentation” justifying the Actual Occupant Load versus the Design Occupant Load for the tenant space. This addendum must be in the form of a letter from the tenant or business owner, with the following:
 - 4.2.5.1. Written testimonial from the tenant explaining staffing and/or maximum project occupant levels based on the business use of the space.
 - 4.2.5.2. The tenant / business owner must recognize that they shall enforce the Actual Occupant Load, and must never exceed this posted maximum occupant load
- 4.3. Upon receipt of the petition identified within Section 4.2, the Chief Building Official for Macon-Bibb County will review and render his/her findings in writing to the principle registered design professional for the project. The approval or rejection will be linked to the permit number and archived for this project.
- 4.4. If the reduction (decrease) in occupant load petition using the format prescribed in Section 4.2 is approved the construction documents for the project must be revised to include the following:
 - 4.4.5. A Life Safety / Egress Plan, which is a plan view of the tenant space or building. The plan shall be to an approved scale, which is not less than $\frac{1}{4}'' = 1'-0''$, and include the furniture layout / placement of all store fixtures and obstructions to egress. The plan shall also include



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the common path of travel distances, and the separation or remoteness of exits.

4.4.6. Provide a chart or table on the Life Safety / Egress Plan sheet that shows the following:

4.4.6.1. Room / area name or number;

4.4.6.2. The area (square footage) of the room / area being calculated;

4.4.6.3. The Occupant Load Factor used from 2018 Life Safety Code Table 7.3.1.2;

4.4.6.4. The Design Occupant Load;

4.4.6.5. The Actual Occupant Load.

4.4.6.6. The chart or table must provide a total of the Actual Occupant Load and the Design Occupant Load

4.4.7. The Life Safety Plan sheet must include an example of the maximum occupant load sign, which contains the total Actual Occupant Load, the name of the tenant and text noting that the Actual Occupant Load is specific to the tenant and becomes null and void when the tenant surrenders occupancy of the space.

4.4.7.1. Example of the required maximum occupant load sign:

MAXIMUM OCCUPANT LOAD

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**THIS OCCUPANT LOAD APPROVAL IS SPECIFIC
TO "ACME OFFICE SUPPLIES" AND BECOMES
NULL AND VOID WHEN THIS TENANT
VACATES THE SPACE.**

**THIS SIGN SHALL REMAIN POSTED BY
ORDER OF THE
CHIEF BUILDING OFFICIAL & FIRE MARSHAL**



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4.4.7.2. The maximum occupant load sign must be permanent in nature and not be printed on paper. Acceptable options for the signage materials may include, but are not limited to: an engraved plastic sign or metal sign with painted, vinyl or silk screened text.

4.4.7.3. Other signage materials not specifically identified within Section 4.4.7.2., which are permanent in nature and legible will be considered for approval at the discretion of the Chief Building Official.

4.4.8. The Life Safety / Egress Plan prescribed within Section 4.4. must show the mounting location of the maximum occupant load sign. This sign must be mounted at or near the main exit.

5. SUMMATION

5.1 Existing buildings that are undergoing interior alterations or changes of occupancy, which cannot comply with the prescriptive requirements of the 2018 Life Safety Code for the Means of Egress system may apply for use of 2018 Life Safety Code Section 7.3.1.2.1, as modified by the Georgia State Fire Commissioner Rules and Regulations Chapter 120-3-3.04.72(e)4.

5.2 Under this amendment / modification found within the Georgia State Fire Marshal rules and regulations, the Design Team through the principle registered design professional for the project may apply for a reduction (decrease) of the occupant load. As prescribed within Section 4.2., above.

5.3 If the occupant load reduction (decrease) is approved by Chief Building Official the construction documents must be revised to reflect the requirements outlined within Section 4.4..

6. FREQUENTLY ASKED QUESTIONS

6.1 Can the occupant load reduction process, as outlined within the interpretation be used for new construction?

No. The occupant load reduction process is meant solely for existing buildings to resolve the conflicts between earlier adopted codes or design best practices versus the current adopted version of the Life Safety Code for egress.



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6.2 Will Macon-Bibb County accept an occupant load reduction to avoid an automatic sprinkler system or fire alarm system?

No. The design professional must clearly state BOTH the Design Occupant Load and the Actual Occupant Load on the construction documents (plans). The use of the Actual Occupant Load as a method of occupant load reduction is meant to resolve issues within the Means of Egress centered around egress component width.

6.3 Will Macon-Bibb County allow the occupant load reduction to reduce the number of plumbing fixtures prescriptively required by 2018 International Building Code Section 2902.1

No. The design professional must clearly state BOTH the Design Occupant Load and the Actual Occupant Load on the construction documents (plans). The use of the Actual Occupant Load as a method of occupant load reduction is meant to resolve issues within the Means of Egress centered around egress component width.