

Exit Signs & Emergency Lighting Information Packet



Colorado Springs Fire Department Division of the Fire Marshal

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SCOPE

Fire safety is a consideration given to many aspects of your daily life. Many of these aspects are inherent in the overall design and construction of your environment. This information packet discusses the fire safety issues related to exit signs and emergency lighting.

The requirements discussed in this document apply to new construction and, in the extent applicable, existing facilities.

This packet is based on the 2009 edition of the International Fire Code (IFC), the 2009 International Building Code (IBC) and the National Electrical Code (NEC).

PURPOSE

Fire safety awareness, preparation and prevention are your best defense against a fire. The information provided in this information packet is intended to improve your awareness of the fire safety features that you will encounter in various occupancies. Awareness of these features leads to identification when items may need fixing, maintenance, or corrective action.

DEFINITIONS

The term “exit sign” shall mean those required signs that will continually indicate the path of exit travel within the means of an egress system.

The term “emergency lighting” shall mean egress lighting that is a battery-powered lighting device that is designed to switch on automatically in the event that a building loses power from its main supply.



EXIT SIGNS & EMERGENCY LIGHTING

Exit signage and emergency lighting are critical items that may be required to be installed within your building. The proper type and placement of these features is a major factor when considering the building occupants life safety needs during emergency egress.

- The International Fire Code (IFC) Chapter 10 – Means of Egress deals with all aspects of exiting and emergency illumination in a building.

When exit signs are required, and/or when they are installed voluntarily, they shall be illuminated at all times; either internally or externally.

EXIT SIGN PLACEMENT

Where exit signs are required, exit and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. The path of egress travel to exits and within exits shall be marked by readily visible exit signs to clearly indicate the direction of egress travel in cases where the exit or the path of egress travel is not immediately visible to the occupants. Intervening means of egress doors within exits shall be marked by exit signs.

Exit sign placement shall be such that no point in an exit access corridor or exit passageway is more than 100 feet or the listed viewing distance for the sign, whichever, is less, from the nearest visible exit sign.

Exceptions:

1. *Exit signs are not required in rooms or areas that require one exit or exit access.*
2. *Main exterior exit doors or gates that are obviously and clearly identifiable as exits need not have exit signs where approved by the fire code official.*
3. *Exit signs are not required in occupancies in Group U and individual sleeping units or dwelling units in Group R-1, R-2 or R-3.*

4. *Exit signs are not required in dayrooms, sleeping rooms or dormitories in occupancies in Group I-3.*
5. *In occupancies in Group A-4 and A-5, exit signs are not required on the seating side of vomitories or openings into seating areas where exit signs are provided in the concourse that are readily apparent from the vomitories. Egress lighting is provided to identify each vomitory or opening within the seating area in an emergency.*

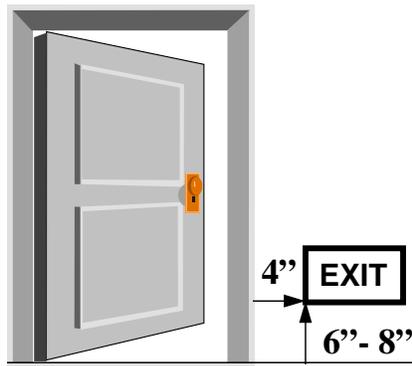
LOW LEVEL EXIT SIGNS

New Hotels

Where exit signs are required in Group R-1 occupancies by Section 1013.1 of the 2015 International Fire Code, additional low-level exit signs shall be provided in all areas serving guest rooms in Group R-1 occupancies and shall comply with Section 1013.5.

Placement of Low Level Exit Signs

The bottom of the sign shall not be less than 10-inches nor more than 12-inches above the floor level. The sign shall be flush mounted to the door or wall. Where mounted on the wall, the edge of the sign shall be within 4-inches of the door frame on the latch side. Exit signs shall be internally or externally illuminated at all times.



- As indicated, in new or renovated Group R-1 occupancies, these additional “low level” exit signs will be required. These signs are to be located near the floor level or in the clean air space where occupants may have to crawl out of a building in the event of fire and smoke conditions.
- All exit signs – regardless of their placement – shall comply with the exact same code applications for illumination, night-lights, and emergency power.

“NOT AN EXIT” SIGNS

The use of “NOT AN EXIT” signage is prohibited! This is because in the event of a fire and/or emergency, the only word that registers to people is “EXIT”.



EXIT SIGN EMERGENCY POWER

The power supply for a means of egress illumination shall normally be provided by the premises' electrical supply. In the event of power supply failure, an emergency electrical system shall automatically illuminate all of the following areas:

1. Aisles and unenclosed egress stairways in rooms and spaces that require two or more means of egress.
2. Corridors, exit enclosures and exit passageways in buildings required to have two or more exits.
3. Exterior egress components at other than their levels of exit discharge until exit discharge is accomplished for buildings required to have two or more exits.
4. Interior exit discharge elements, as permitted in Section 1027.1 in buildings required to have two or more exits.
5. Exterior landings as required by Section 1008.1.6 for exit discharge doorways in buildings required to have two or more exits.

The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Chapter 27 of the International Building Code.

Emergency lighting facilities shall be arranged to provide initial illumination that is at least an average of 1 foot-candle (11 lux) and a minimum at any point of 0.1 foot-candle (1 lux) measured along the path of egress at floor level. Illumination levels shall be permitted to decline to 0.6 foot candle (6 lux) average and a minimum at any point of 0.06 foot candle (0.6 lux) at the end of the emergency lighting time duration. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded.

GRAPHICS

The color and design of the lettering, arrows, and other symbols shall be in high contrast with their background. There are, however, no code requirements concerning the color of the exit signs.

Words on the exit signs shall be in BLOCK letters six (6) inches in height with a minimum 3/4-inch stroke.

- Usually, we see red or green exit signs used. The colors, however, are not specifically designated within the code. The code allows for some latitude on this issue, however, the letter colors must be of high contrast with the background. It may be wise to contact the CSFD for our approval if your design will be different than the normal red and green exit signs seen throughout the city.

EMERGENCY LIGHTING REQUIREMENTS

The means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied.

Exceptions:

1. *Occupancies in Group U.*
2. *Aisle accessways in Group A*
3. *Dwelling units and sleeping units in Group R-1, R-2 & R-3.*
4. *Sleeping units of Group I occupancies.*

The means of egress illumination level shall not be less than 1-foot candle (1 1 lux) at the walking surface.

Exceptions: For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances to not less than 0.2 foot candle (2.15 lux), provided that the required illumination is automatically restored upon activation of a premises' fire alarm system where such system is provided.

Foot-candles are measured using a light meter.

ILLUMINIOUS EGRESS PATH MARKINGS

Approved luminous egress path markings delineating the exit path shall be provided in buildings of Groups A, B, E, I, M and R-1 having occupied floors located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access in accordance with Section 1024.1 through 1024.5.

Exceptions:

1. *Luminous egress path markings shall not be required on the level of exit discharge in lobbies that serve as part of the exit path in accordance with Section 1027.1, Exception 1.*
2. *Luminous egress path markings shall not be required in areas of open parking garages that serve as part of the exit path in accordance with Section 1027.1, Exception 3.*

ADDITIONAL EXIT SIGNS AND/OR EMERGENCY LIGHTING

Depending on individual conditions or circumstances, the Fire Department reserves the right to require modifications to ensure an appropriate level of fire and life safety is maintained.

Regardless of the occupant load, when an exit access pathway is not easily identifiable from an area of a building, additional exit signs, lights, emergency lights or markings may be required.

- In a building, room, or area that does not require two exits, but there are obstructions to exits or where the exits are not visually clear to the occupants, additional exit signs and/or emergency lighting units may be required.
- In these cases they will be required regardless of the occupant loads.

TESTING EXIT SIGNS & EMERGENCY LIGHTING

These systems are required to be fully tested. Full power drop tests will be performed by the CSFD prior to approving fire finals for occupancy.

The Fire Department will require that all the systems be fully tested. A qualified person must be on-site to perform the tests. The field inspectors will not operate any of the systems. They are there to observe the tests, and are not permitted to operate the equipment.

MAINTENANCE OF THE “MEANS OF EGRESS”

All exit signs, night lights, and emergency lighting units are to be tested semi-annually (every 6 months), and units not working properly are to be repaired or replaced immediately.

All exit access, exit doorways, and the exit discharge systems are to remain clear and unobstructed at all times. At no time shall any form of obstruction be placed into the exit egress system. Aisles, hallways, corridors, corridor and exit doors, emergency escapes, etc. shall not be obstructed by any type of storage or projections.

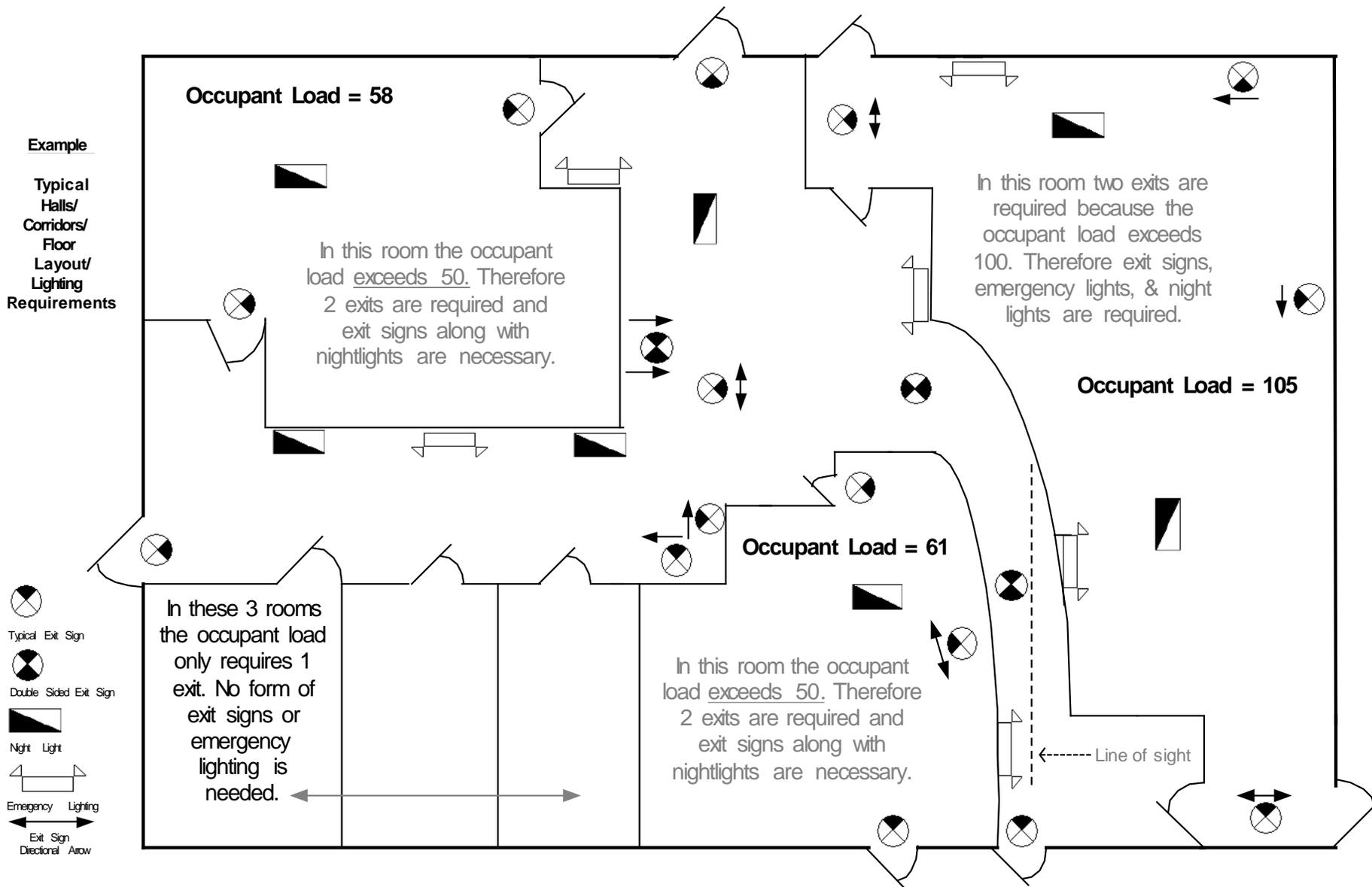
- **NEVER OBSTRUCT THE PATHWAY TO ANY EXIT AT ANY TIME! BLOCKING AN EXIT PATH IS SERIOUS BUSINESS!**
- **The CSFD does issue tickets for obstruction or locking of any exit egress pathway.**
- **In the past, stiff court penalties and fines have been assessed for blocking exit-ways. There have also been many deaths related directly to blocked exits – please don’t add to or become one of those statistics!**

FREQUENTLY ASKED QUESTIONS

1. If I install exit signs voluntarily, do they need to illuminate continuously and operate on battery back-up? **Yes, all installed exit signs must meet code requirements, even if they are voluntarily installed.**
2. Do I have to install additional exit signs and/or emergency lights if the ones I have do not meet the current code requirements? **At the time of inspection, the inspector will verify the placement of all exit signs. Additionally, all exit signs and emergency lighting will be tested on battery back-up power to ensure they meet code requirements. If additional devices are required, the inspector will let you know.**
3. During an inspection, can I test my exit signs and emergency lighting using the “test” button? **No, the inspector will ask the electrician to “drop” the power to simulate a power failure. All exits and emergency lighting must illuminate on battery back-up power.**
4. If my building is equipped with a generator, will the inspector still require testing of the exits and emergency lighting on battery back-up? **No, the inspector may accept maintenance reports that verify when the devices were last tested. However, if new devices are being installed, the inspector may want to witness their functionality.**

EXIT SIGNS & EMERGENCY LIGHTING

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EXAMPLE

Typical Corridor/Hallway
Lighting Requirements

Exit signs must be placed
on both sides of a corridor
door

Maximum distance
between exit signs is 200'

