

# 2021 COMPLIANCE GUIDE

This document provides guidance to local building officials, architects, and contractors as to the requirements for luminous egress path markings in new and existing high-rise buildings, in accordance with the 2021 International Building and Fire codes. Compliance with these code sections will ensure a safe evacuation of residents during emergency conditions-potentially saving lives in the process.

## LUMINOUS EGRESS PATH MARKINGS

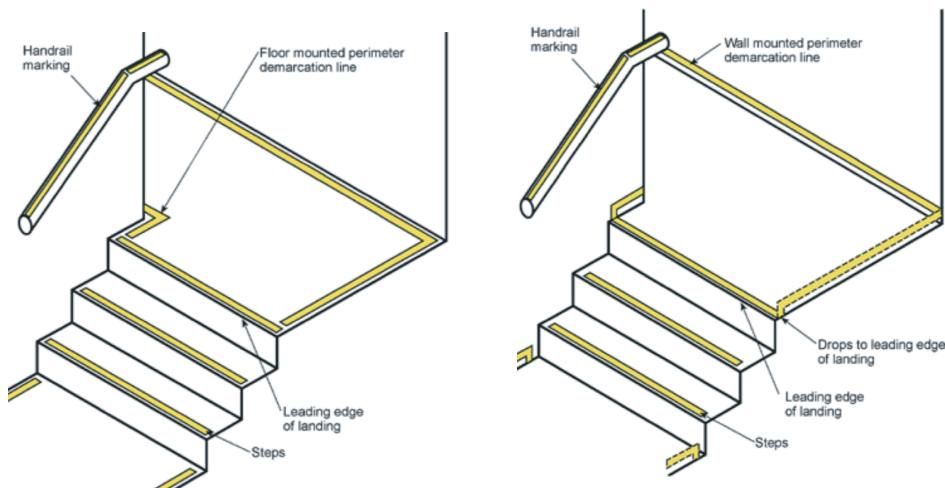
### 1025.1 GENERAL

Approved luminous egress path markings delineating the exit path shall be provided in high-rise buildings of Groups A, B, E, I-1, M or R-1 occupancies in accordance with this section.

**Exception:** 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 1028.1, Exception 1.

### 1025.2 MARKINGS WITHIN EXIT COMPONENTS

Egress path markings shall be provided in interior exit stairways, interior exit ramps and exit passageways, in accordance with Sections 1025.2.1 through 1025.2.6.



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CODE COMPLIANT  
PHOTOLUMINESCENT  
STAIR NOSINGS

### 1025.2.1 STEPS

A solid and continuous stripe shall be applied to the horizontal leading edge of each step and shall extend for the full length of the step. Outlining stripes shall have a minimum horizontal width of 1 inch (25 mm) and a maximum width of 2 inches (51 mm). The leading edge of the stripe shall be placed not more than 1/2 inch (12.7 mm) from the leading edge of the step and the stripe shall not overlap the leading edge of the step by not more than 1/2 inch (12.7 mm) down the vertical face of the step.

**Exception:** The minimum width of 1 inch (25 mm) shall not apply to outlining stripes listed in accordance with UL 1994.

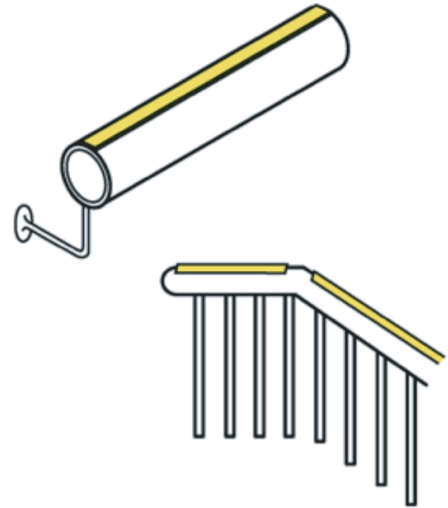
## 1025.2.2 LANDINGS

The leading edge of landings shall be marked with a stripe consistent with the dimensional requirements for steps.

## 1025.2.3 HANDRAILS

Handrails and handrail extensions shall be marked with a solid and continuous stripe having a minimum width of 1 inch (25 mm). The stripe shall be placed on the top surface of the handrail for the entire length of the handrail, including extensions and newel post caps. Where handrails or handrail extensions bend or turn corners, the stripe shall not have a gap of more than 4 inches (102 mm).

**Exception:** The minimum width of 1 inch (25 mm) shall not apply to outlining stripes listed in accordance with UL 1994.



VIEW RECOMMENDED CODE  
COMPLIANT  
PHOTOLUMINESCENT HANDRAILS

## 1025.2.4 PERIMETER DEMARCATION LINES

Stair landings and other floor areas within interior exit stairways, interior exit ramps and exit passageways, with the exception of the sides of steps, shall be provided with solid and continuous demarcation lines on the floor or on the walls or a combination of both. The stripes shall be 1 to 2 inches (25 mm to 51 mm) wide with interruptions not exceeding 4 inches (102 mm).

**Exception:** The minimum width of 1 inch (25 mm) shall not apply to outlining stripes listed in accordance with UL 1994.

### 1025.2.4.1 FLOOR-MOUNTED DEMARCATION LINES

Perimeter demarcation lines shall be placed within 4 inches (102 mm) of the wall and shall extend to within 2 inches (51 mm) of the markings on the leading edge of landings. The demarcation lines shall continue across the floor in front of all doors.

**Exception:** Demarcation lines shall not extend in front of exit discharge doors that lead out of an exit and through which occupants must travel to complete the exit path.

### 1025.2.4.2 WALL-MOUNTED DEMARCATION LINES

Perimeter demarcation lines shall be placed on the wall with the bottom edge of the stripe not more than 4 inches (102 mm) above the finished floor. At the top or bottom of the stairs, demarcation lines shall drop vertically to the floor within 2 inches (51 mm) of the step or landing edge. Demarcation lines on walls shall transition vertically to the floor and then extend across the floor where a line on the floor is the only practical method of outlining the path.

**Exception:** Demarcation lines shall not extend in front of exit discharge doors that lead out of an exit and through which occupants must travel to complete the exit path.

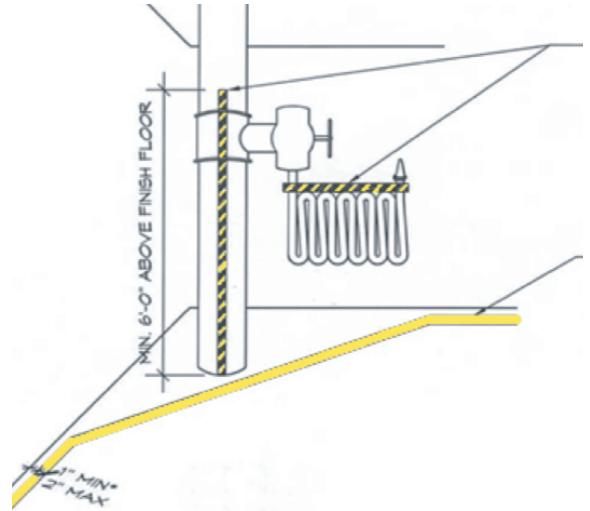
VIEW RECOMMENDED CODE  
COMPLIANT  
PHOTOLUMINESCENT  
PERIMETER MARKINGS

### 1025.2.4.3 TRANSITION

Where a wall-mounted demarcation line transitions to a floor-mounted demarcation line, or vice versa, the wall-mounted demarcation line shall drop vertically to the floor to meet a complimentary extension of the floor-mounted demarcation line, thus forming a continuous marking.

## 1025.2.5 OBSTACLES

Obstacles at or below 6 feet 6 inches (1981 mm) in height and projecting more than 4 inches (102 mm) into the egress path shall be outlined with markings not less than 1 inch (25 mm) in width comprised of a pattern of alternating equal bands, of luminous material and black, with the alternating bands not more than 2 inches (51 mm) thick and angled at 45 degrees (0.79 rad). Obstacles shall include, but are not limited to, standpipes, hose cabinets, wall projections and restricted height areas. However, such markings shall not conceal any required information or indicators including but not limited to instructions to occupants for the use of standpipes.



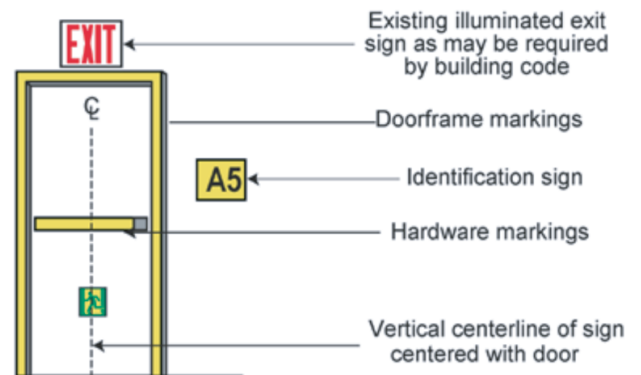
VIEW RECOMMENDED CODE COMPLIANT  
PHOTOLUMINESCENT OBSTRUCTION MARKINGS

## 1025.2.6 DOORS WITHIN THE EXIT PATH

Doors through which occupants must pass in order to complete the exit path shall be provided with markings complying with Sections 1025.2.6.1 through 1025.2.6.3.

### 1025.2.6.1 EMERGENCY EXIT SYMBOL

The doors shall be identified by a low-location luminous emergency exit symbol complying with NFPA 170. The exit symbol shall be not less than 4 inches (102 mm) in height and shall be mounted on the door, centered horizontally, with the top of the symbol not higher than 18 inches (457 mm) above the finished floor.



VIEW RECOMMENDED CODE COMPLIANT  
PHOTOLUMINESCENT DIRECTIONAL SIGNAGE

### 1025.2.6.2 DOOR HARDWARE MARKINGS

Door hardware shall be marked with not less than 16 square inches (406 mm<sup>2</sup>) of luminous material. This marking shall be located behind, immediately adjacent to, or on the door handle or escutcheon. Where a panic bar is installed, such material shall not be less than 1 inch (25 mm) wide for the entire length of the actuating bar or touchpad.

### 1025.2.6.3 DOOR FRAME MARKINGS

The top and sides of the door frame shall be marked with a solid and continuous 1-inch- to 2-inch-wide (25 mm to 51 mm) stripe. Where the door molding does not provide sufficient flat surface on which to locate the stripe, the stripe shall be permitted to be located on the wall surrounding the frame.

VIEW RECOMMENDED CODE COMPLIANT  
DOOR HARDWARE AND FRAME MARKINGS

## 1025.3 UNIFORMITY

Placement and dimensions of markings shall be consistent and uniform throughout the same enclosure.

## 1025.4 SELF-LUMINOUS AND PHOTOLUMINESCENT

Luminous egress path markings shall be permitted to be made of any material, including paint, provided that an electrical charge is not required to maintain the required luminance. Such materials shall include, but not be limited to, self-luminous materials and photoluminescent materials. Materials shall comply with either of the following standards:

1. UL 1994.
2. ASTM E2072, except that the charging source shall be 1 footcandle (11 lux) of fluorescent illumination for 60 minutes, and the minimum luminance shall be 30 milicandelas per square meter at 10 minutes and 5 milicandelas per square meter after 90 minutes.

## 1025.5 ILLUMINATION

Where photoluminescent exit path markings are installed, they shall be provided with not less than 1 footcandle (11 lux) of illumination for not less than 60 minutes prior to periods when the building is occupied and continuously during occupancy.

## 2018 IFC/IBC 1023.9 STAIRWAY IDENTIFICATION SIGNS

A sign shall be provided at each floor landing in an interior exit stairway and ramp connecting more than three stories designating the floor level, the terminus of the top and bottom of the interior exit stairway and ramp and the identification of the stairway or ramp. The signage shall state the story of and direction to the exit discharge, and the availability of roof access from the interior exit stairway and ramp for the fire department. The sign shall be located 5 feet (1524 mm) above the floor landing in a position that is readily visible when the doors are in the open and closed positions. In addition to the stairway identification sign, a floor-level sign in visual characters, raised characters and braille complying with ICC A117.1 shall be located at each floor-level landing adjacent to the door leading from the interior exit stairway and ramp into the corridor to identify the floor level.

### 1023.9.1 SIGNAGE REQUIREMENTS

1. The signs shall be a minimum size of 18 inches (457 mm) by 12 inches (305 mm).
2. The letters designating the identification of the interior exit stairway and ramp shall be not less than 1 1/2 inches (38 mm) in height.
3. The number designating the floor level shall be not less than 5 inches (127 mm) in height and located in the center of the sign.
4. Other lettering and numbers shall be not less than 1 inch (25 mm) in height.
5. Characters and their background shall have a nonglare finish. Characters shall contrast with their background, with either light characters on a dark background or dark characters on a light background.
6. Where signs required by Section 1023.9 are installed in the interior exit stairways and ramps of buildings subject to Section 1025, the signs shall be made of the same materials as required by Section 1025.4.

[VIEW RECOMMENDED CODE COMPLIANT  
STAIRWAY IDENTIFICATION SIGNS](#)

# QUICK REFERENCE

Outlined below is an overview of recommended, code compliant solutions for every section of the 2018 ICF/IBC relating to luminous egress path marking regulations.

## 1025.2.1 STEPS - 1025.2.2 LANDINGS

- **E Series**

*Photoluminescent contrast strips*

- **F / RF Series**

*Flat aluminum stair nosings with photoluminescent contrast strips*

- **S Series**

*Cast-in-place aluminum stair nosings with photoluminescent contrast strips*

- **G Series**

*Photoluminescent guidance strip*

## 1025.2.3 HANDRAILS

- **H Series**

*Handrail strip and end caps*

- **G Series**

*Photoluminescent guidance strip*

## 1025.2.4 PERIMETER DEMARCATION LINES

- **T5-G3001 / T8-6001**

*Aluminum track and photoluminescent guidance strip*

- **G Series**

*Photoluminescent guidance strip*

## 1025.2.5 OBSTACLES

- **G250R-OB(C)**

*Photoluminescent obstruction strip*

- **G300F-OB**

*Photoluminescent obstruction tape*

## 1025.2.6.1 EMERGENCY EXIT SYMBOL

- **R Series**

*Running man photoluminescent directional and door exit signs*

## 1025.2.6.2 DOOR HARDWARE MARKINGS

- **DHM Series**

*Door hardware indicators*

## 1025.2.6.3 DOOR FRAME MARKINGS

- **G Series**

*Photoluminescent guidance strip*

## 1025.4 SELF-LUMINOUS AND PHOTOLUMINESCENT

All components UL 1994 listed and/or ASTM E 2072 compliant

## 1023.9 STAIRWAY IDENTIFICATION SIGNS

- **FID**

*Floor identification signs*