



HOW WELL DO YOU KNOW YOUR CODES? PART 1 OF 2



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ACROSS

1 NFPA 101 is the _____ Code, which covers new and existing structures. (10)

5 Several products have now been listed for use on fire door assemblies where the clearance or _____ is greater than what is allowed by NFPA 80. (3)

8 The model codes require some types of access control systems to comply with _____ 294 - Standard for Access Control System Units. (2)

9 The 2019 edition of NFPA 80 clarified the requirements for job site preparations for the auxiliary fire pin that is typically installed with LBR _____ hardware. (8)

11 According to NFPA 80, a _____ is defined as "a structural component of the building that forms the bottom part of an opening over which a door closes." (4)

12 Panic hardware is typically operated by a touchpad or cross _____ which releases the latch. (3)

14 On manually-operated sliding _____, the hardware must be exposed and usable from both sides in the fully-open position. (5)

15 The maximum allowable clearance at a 90-minute wood fire door is 1/8-inch, measured between the door _____ and the frame rabbet, on the pull side of the door. (4)

17 UL 1784 is the test standard for _____ leakage, which impacts the need for gasketing on smoke doors. (3)

18 _____ is the Standard for Fire Doors and Other Opening Protectives, referenced by the model codes. (10)

20 The 2018 IBC includes changes which clarify that mag-locks which comply with the IBC criteria can be installed on doors with _____ hardware. (5)

22 BHMA A156.19 requires low-energy operators to be actuated by a _____ act, such as pushing a wall-mounted actuator, using an access control reader, or pushing/pulling the door slightly. (7)

24 Most US states have adopted either NFPA 1 / NFPA 101 or the _____ as the state fire code, with or without state modifications. (3)

25 For most door openings, the IBC requires a clear opening width of 32 inches, but 41 1/2 inches of clear width are required for doors that must accommodate the movement of _____ in health care facilities. (4)

27 The accessibility standards require manually-operated doors to close from 90 degrees to 12 degrees in no less than _____ seconds. (4)

28 The monthly column on codes that is published in each issue of Door Security + Safety Magazine is called _____. (7)

30 _____ Hardware.com is a helpful source of information regarding the codes and standards that apply to door openings. (4)

33 Beginning with the 2017 edition of the BHMA A156.10 standard, presence sensors must be _____, to improve the safety of power-operated pedestrian doors. (9)

35 Each component of a fire door assembly must be listed for that purpose, including accessories like a door cord or door position _____. (6)

37 When a delayed egress lock is installed on an inswinging door, the signage is required to state: "_____ until alarm sounds. Door can be opened in 15 seconds." (4)

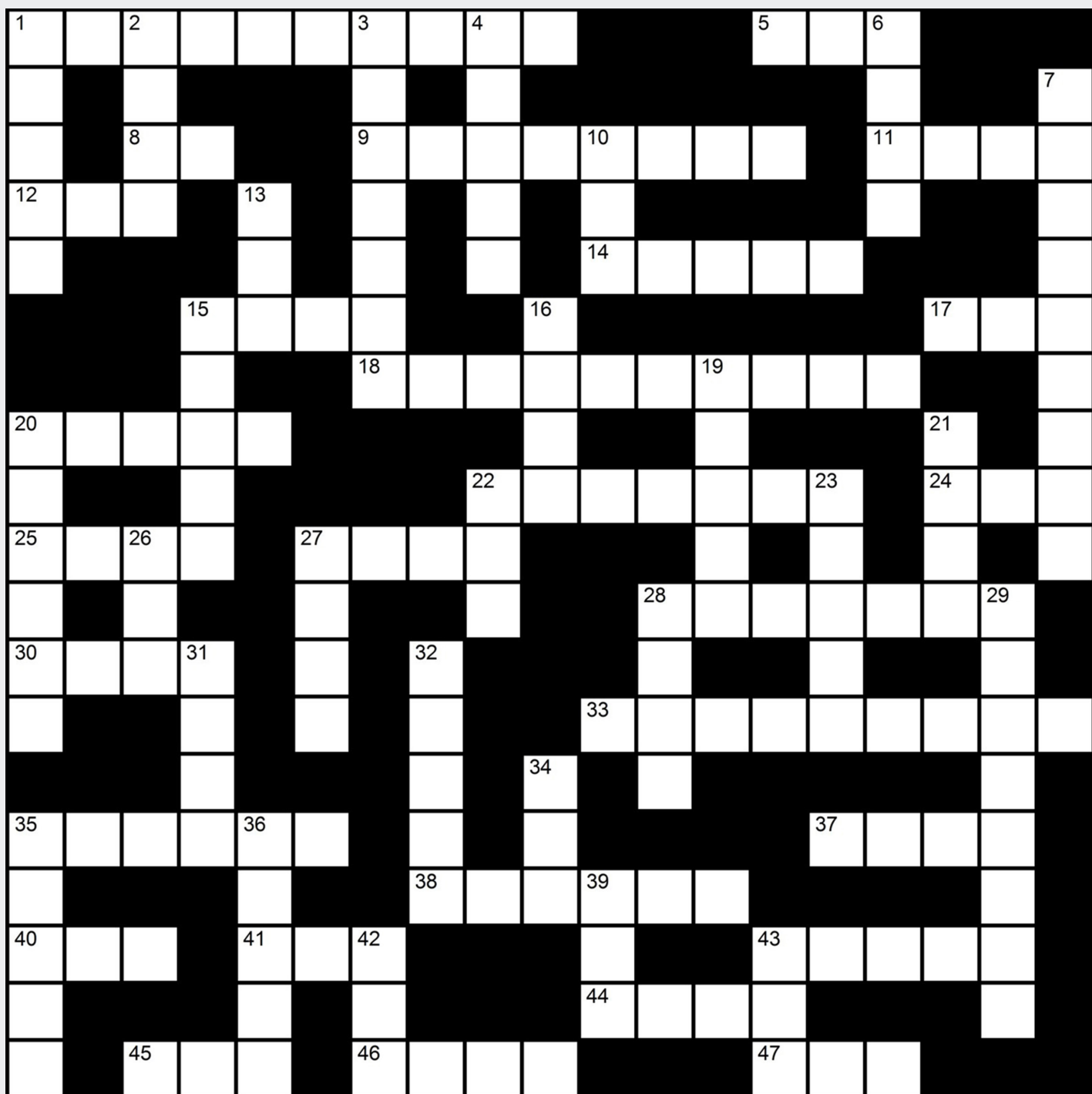
38 Controlled egress (an electrified lock which does not allow egress under normal conditions) is allowed by the model codes in _____ care units where the patients require containment for their safety or security. (6)

40 With the exception of dwelling units and sleeping units, egress doors serving most rooms and spaces must unlatch with _____ releasing operation. (3)

41 The fire marshal and building inspector are two examples, but there may be multiple people who are considered the _____ for a particular building. (3)

43 When a door is in the fully-open position, it can not encroach upon the required egress corridor width by more than _____ inches. (5)

** Clues continue on page 54*



KEY

ADA: Americans with Disabilities Act

BHMA: Builders Hardware Manufacturers Association

DHI: Door Security + Safety Professionals

IBC: International Building Code

ICC: International Code Council

IFC: International Fire Code

LBL: Less Bottom Latch

LBR: Less Bottom Rod

NFPA: National Fire Protection Association

SDI: Steel Door Institute

44 Beginning with the 2010 edition of NFPA 80, glazing in _____ fire doors must be installed at the door manufacturer or under that manufacturer's label service. (4)

45 The requirements for annual inspections of fire door assemblies are being enforced by the Joint Commission in health care facilities, since _____ adopted the 2012 edition of NFPA 101. (3)

46 The IBC section called "_____ Locks" addresses flush bolts and surface bolts on pairs of doors; this section does not address deadbolts. (4)

47 The _____ is responsible for publishing the International Building Code and International Fire Code, along with many other codes and standards. (3)

DOWN

1 NFPA 101 allows doors serving an elevator _____ to be electrically locked, but the IBC requires each of these spaces to have a code-compliant means of egress. (5)

2 Although NFPA 101 allows stairwell doors serving _____ stories or less to be mechanically locked on the stair side, in most use groups the IBC requires stairwell doors at all levels to allow reentry. (4)

3 The 2017 edition of ICC A117.1 limits the operable force of door hardware to _____ pounds with a pushing/pulling motion, or 28 inch-pounds of rotational motion. (7)

4 If a door has a vision light or sidelight that is installed less than 66 inches above the floor, the bottom of at least one light must be located no more than forty-_____ inches above the floor. (5)

6 When an electrified lock is released by a sensor to allow egress, the lock must also be released by a wall-mounted button marked " _____ to exit." (4)

7 The ADA Guide recommends that door pulls have at least 1 1/2 inches of _____ behind the pull. (9)**10** Where more than one exit or exit access doorway is required, the length of a dead-_____ corridor (a corridor with no outlet) is limited by the IBC and NFPA 101. (3)

13 An auxiliary fire pin is typically needed when fire exit hardware is installed less-bottom-_____ (LBR) / less-bottom-latch (LBL). (3)

15 When an area in a building has an occupant load of more than 1,000 people, the IBC requires that the room have access to at least 4 _____. (5)

16 According to the IBC, a _____ is an example of Use Group U - Utility and Miscellaneous, which also includes livestock shelters and stables. (4)

19 A free code reference _____ is available for download from the iDigHardware website. (5)

20 The 2017 edition of ICC A117.1 includes some new requirements for automatic operators installed on _____ entrances. (6)

21 _____ door assemblies are opening protectives which help to deter the spread of smoke, flames, and toxic gasses during a fire. (4)

22 Although it is often used to unlock a door, a _____ is not addressed by the accessibility standards, because it is not considered an operable part of the door hardware. (3)

23 Even in masonry construction, hollow metal frames are not typically required by code to have _____ applied to the inside of the frame. (5)

26 _____ is an organization serving door security and safety professionals, which conducts the Fire + Egress Door Assembly Inspection Program (FDAI). (3)

27 Electric strikes installed on fire door assemblies are required to be _____ secure, to facilitate positive latching. (4)

28 In certain occupancies, NFPA 101 mandates annual egress _____ inspections for openings equipped with panic hardware or electrified hardware, and for doors serving exit enclosures. (4)

29 One of the few locations where a latchset/lockset and separate deadbolt may be installed is on the entrance door to a _____ unit or sleeping unit. (8)

31 Tactile warning on door hardware involves a knurled surface or applied _____ on the knob or lever on doors leading to hazardous areas, but this is no longer required by the ADA standards or ICC A117.1. (4)

32 According to NFPA 101, most corridor doors in health care facilities are required to have a positive _____, even if they are not fire doors. (5)

34 Accessibility requirements for doors, doorways, and gates are addressed in Section 404 of the _____ Standards for Accessible Design. (3)

35 NFPA 101 mandates limited airflow (which often requires gasketing) where doors must be _____-leakage-rated, or where they are required to comply with NFPA 105. (5)

36 The 2018 edition of the IBC was modified to allow delayed egress locks to be used on _____ rooms with an occupant load of less than 50 people. (5)

39 The Americans With Disabilities Act is a federal civil rights _____ which prohibits discrimination against individuals with disabilities in public and private places that are open to the general public. (3)

42 According to NFPA 80, a 1-inch diameter hole, field-drilled in a fire door for the installation of surface-mounted hardware, is considered a _____ site preparation. (3)

43 An organization called _____ represents manufacturers of hollow metal doors and frames, and is responsible for the standards addressing those products. (3)

PUZZLE SOLUTION *Part 2 of the Crossword will appear in the March issue.*

