

By Council Member Dilan (by request of the Mayor)

A Local Law to amend the administrative code of the city of New York, the New York city plumbing code, the New York city building code, the New York city mechanical code and the New York city fuel gas code in relation to bringing such codes up to date with the 2009 editions of the international building, mechanical, fuel gas and plumbing codes, with differences that reflect the unique character of the city and clarifying and updating administration and enforcement of such codes and the 1968 code.

Be it enacted by the Council as follows:

Section 1. Legislative intent. This local law implements sections 28-601.1, 28-701.1, 28-801.1 and 28-901.1 of the administrative code, which require triennial updates of the New York city plumbing code, the New York city building code, the New York city mechanical code and the New York city fuel gas code to reflect changes in the International Plumbing, Building, Mechanical and Fuel Gas Codes. These amendments will bring the New York city codes up to date with the 2009 editions of the International Plumbing, Building, Mechanical and Fuel Gas Codes published by the International Code Council, with differences to accommodate the unique nature of construction in the City. The local law is divided into parts A through E. Part A contains amendments to chapters 1 through 5 of title 28 of the administrative code in separately numbered sections within part A. Chapters 1 through 5 contain general provisions governing administration and enforcement of all such codes and the 1968 code. Parts B, C, D and E contain amendments to chapters 6 through 9 of title 28 of the administrative code and to the codes within such chapters-- chapter 6, containing the New York city plumbing code (part B); chapter 7, containing the New York city building code, (part C); chapter 8, containing the New York city mechanical code, (part D); and chapter 9, containing the New York city fuel gas code, (part E). Parts C, D and E are further divided into subparts with each subpart consisting of amendments to a chapter or appendix of the relevant code in separately numbered sections within the subpart.

PANIC HARDWARE. See Section 1002.1.

PARKING GARAGE. [See Section 406.2.2.] A structure or portion of a structure, other than a private garage or carport, used for the parking or storage of motor vehicles.

PARTIAL DEMOLITION. See Section 3302.1.

PARTICLE BOARD. See Section 2302.1.

[**PEDESTAL.** See Section 1902.1.]

PENETRATION FIRESTOP. See Section 702.1.

PENTHOUSE. See Section 1502.1.

[**PERFORATED SHEAR WALL.** See Section 2302.1.]

[**PERFORATED SHEAR WALL SEGMENT.** See Section 2302.1.]

PERMIT. An official document or certificate issued by the commissioner that authorizes performance of specified work or activity.

PERSON. An individual, partnership, corporation, or other legal entity.

PERSONAL CARE SERVICE. See Section 310.2.

PERSONNEL HOIST. See Section 3302.1.

PHOTOLUMINESCENT. See Section 1002.1.

PHOTOSENSOR. A device that detects the presence of visible light.

PHYSICAL HAZARD. See Section 307.2.

PHYSIOLOGICAL WARNING THRESHOLD LEVEL. See Section 415.2.

[**PIER FOUNDATIONS.** See Section 1808.1.

Belled piers. See Section 1808.1.]

[**PILE FOUNDATIONS.** See Section 1808.1.

Augered-cast-in-place piles. See Section 1808.1.

Caisson piles. See Section 1808.1.

incidental to such purposes and accessible to the public. Mercantile occupancies shall include, but not be limited to, the following:

Department stores

Drug stores

Markets

Motor fuel-dispensing facilities

Retail or wholesale stores

Sales rooms

309.2 Quantity of hazardous materials. The aggregate quantity of nonflammable solid and nonflammable or noncombustible liquid hazardous materials stored or displayed in a single control area of a Group M occupancy shall not exceed the quantities in Table [414.2.4] 414.2.5(1).

SECTION BC 310 RESIDENTIAL GROUP R

310.1 Residential Group R. Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for dwelling or sleeping purposes when not classified as Institutional Group I. Buildings containing three or more dwelling units shall be subject to the *New York State Multiple Dwelling Law*. Residential occupancies shall be classified as Group R-1, R-2, or R-3.

310.1.1 Group R-1. This occupancy shall include:

1. Residential buildings or spaces occupied, as a rule, transiently, for a period less than one month, as the more or less temporary abode of individuals or families who are lodged with or without meals, including, but not limited to, the following:

Class B multiple dwellings as defined in Section 27-2004 of the *New York City Housing Maintenance Code* and Section 4 of the *New York State Multiple Dwelling Law*, where not classified in Group I-1.

[Exception: Class B multiple dwellings classified in Group I-1.]

Club houses

Hotels (transient)

Motels (transient)

Rooming houses (boarding houses—transient)

Settlement houses

Vacation timeshares

2. College or school student dormitories, except for student apartments classified as an R-2 occupancy
3. Congregate living units owned and operated by a government agency or not-for-profit organization, where the number of occupants in the dwelling unit exceeds the limitations of a family as defined, including, but not limited to, the following:

Adult homes or enriched housing with 16 or fewer occupants requiring supervised care within the same building on a 24-hour basis

Fraternity and sorority houses

Homeless shelters

310.1.2 Group R-2. This occupancy shall include buildings or portions thereof containing sleeping units or more than two dwelling units that are occupied for permanent residence purposes as defined in subparagraph (a) of paragraph eight of subdivision a of Section 27-2004 of the *New York City Housing Maintenance Code*. Such occupancy shall be subject to the *New York State Multiple Dwelling Law*. This group shall include, but not be limited to, the following:

Adult homes or enriched housing with 16 or fewer occupants requiring supervised care on a 24-hour basis in the same building, provided that the number of occupants per dwelling unit does not exceed the definition of a family

Apartment houses

Apartment hotels (nontransient)

Class A multiple dwellings as defined in Section 27-2004 of the *New York City Housing Maintenance Code* and Section 4 of the *New York State Multiple Dwelling Law*, [including the following] where not classified in Group I-1:

1. Dwelling units where the resident of the unit provides custodial care to no more than four persons on less than a 24-hour basis and not overnight, where not classified in Group I-1.
2. Dwelling units where the resident of the unit provides child custodial care as a family day care home registered with the New York City Department of Health

and Mental Hygiene in accordance with the *New York State Social Services Law* with no more than six children between the ages of 2 and 13, or with no more than five children if any are under the age of 2, receiving supervised care on less than a 24-hour basis and not overnight, where not classified in Group I-1.

[**Exception:** Class A multiple dwellings classified in Group I-1.]

Convents and monasteries with more than 20 occupants in the building

Student apartments

310.1.3 Group R-3. This occupancy shall include buildings or portions thereof containing no more than 2 dwelling units, occupied, as a rule, for shelter and sleeping accommodation on a long-term basis for a month or more at a time, and are not classified in Group R- 1, R-2 or I. This group shall include, but not be limited to, the following:

Convents and monasteries with more than 20 occupants in the building

Group homes

One- and two-family dwellings, including the following:

1. Dwelling units where the resident of the unit provides custodial care to no more than four persons on less than a 24-hour basis and not overnight.
2. Dwelling units where the resident of the unit provides child custodial care as a family day care home registered with the New York City Department of Health and Mental Hygiene in accordance with the *New York State Social Services Law* with no more than six children between the ages of 2 and 13, or with no more than five children if any are under the age of 2, receiving supervised care on less than a 24-hour basis and not overnight.

310.2 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

APARTMENT. A dwelling unit providing permanent provisions for both sanitation and kitchen facilities, occupied or arranged to be occupied by not more than one family maintaining a common household.

APARTMENT, STUDENT. An apartment occupied or arranged to be occupied by students enrolled at a single accredited college or university and maintaining a common household pursuant to a lease, sublease, or occupancy agreement directly with such college or university.

BOARDER (ROOMER, LODGER). A person who pays a consideration for living within the household and does not occupy such space as an incident of employment.

CONGREGATE LIVING UNIT. A dwelling unit, comprised of one or more habitable rooms separated by nonrated partitions, occupied or arranged to be occupied by more than one family or by persons who are not maintaining a common household. Creation of or conversion to such unit shall be subject to Section 27-2077 of the *New York City Housing Maintenance Code*.

CUSTODIAL CARE FACILITY. A building or part thereof occupied by persons, on less than a 24-hour basis and not overnight, who because of age, disability or other reasons, receive personal care services by individuals other than parents or guardians, relatives by blood, marriage, domestic partnership, or adoption, in a place other than the home of the person cared for.

DWELLING. A building or structure which is occupied in whole or in part as the home, residence or sleeping place of one or more families.

DWELLING, MULTIPLE. A dwelling which is either rented, leased, let or hired out, to be occupied, or is occupied, as the residence or home of three or more families living independently of each other. A multiple dwelling does not include a building used for occupancies in Groups I-2, I-3 or I-4.

DWELLING, ONE-FAMILY. Any building or structure designed and occupied exclusively for residence purposes on a long-term basis for more than a month at a time by not more than one family. One-family dwellings shall also be deemed to include a dwelling located in a series of one-family dwellings each of which faces or is accessible to a legal street or public thoroughfare, provided that each such dwelling unit is equipped as a separate dwelling unit with all essential services, and also provided that each such unit is arranged so that it may be approved as a legal one-family dwelling.

DWELLING, TWO-FAMILY. Any building or structure designed and occupied exclusively for residence purposes on a long-term basis for more than a month at a time by not more than two families. Two-family dwellings shall also be deemed to include a dwelling located in a series of two-family dwellings each of which faces or is accessible to a legal street or public thoroughfare, provided that each such dwelling is equipped as a separate dwelling with all essential services, and also provided that each such dwelling is arranged so that it may be approved as a legal two-family dwelling.

DWELLING UNIT. A single unit consisting of one or more habitable rooms and occupied or arranged to be occupied as a unit separate from all other units within a dwelling.

FAMILY.

1. A single person occupying a dwelling unit and maintaining a common household with not more than two boarders, roomers or lodgers; or
2. Two or more persons related by blood, adoption, legal guardianship, marriage or

domestic partnership; occupying a dwelling unit and maintaining a common household with not more than two boarders, roomers or lodgers; or

3. Not more than three unrelated persons occupying a dwelling unit and maintaining a common household; or
4. Not more than three unrelated persons occupying a dwelling unit in a congregate housing or shared living arrangement and maintaining a common household; or
5. Members of a group home; or
6. Foster children placed in accordance with provisions of the *New York State Social Services Law*, their foster parent(s), and other persons related to the foster parents by blood, marriage or domestic partnership; where all residents occupy and maintain a common household with not more than two boarders, roomers or lodgers; or
7. Up to seven unrelated students enrolled at a single accredited college or university occupying a student apartment and maintaining a common household pursuant to a lease, sublease, or occupancy agreement directly with such college or university, provided that:
 - 7.1. The entire structure in which the dwelling unit is located is fully sprinklered in accordance with Chapter 9; and
 - 7.2. Such occupancy does not exceed the maximums contained in Section 27-2075(a) of the *New York City Housing Maintenance Code*; and
 - 7.3. Prior to commencement of such occupancy, and on an annual basis thereafter such college or university has submitted a fire safety plan containing fire safety and evacuation procedures for such dwelling unit that is acceptable to the fire commissioner and in compliance with any rules promulgated by the Fire Commissioner; and
 - 7.4. The dwelling unit complies with additional occupancy and construction requirements as may be established by rule by the housing preservation and Development Commissioner.

A common household is deemed to exist if all household members have access to all parts of the dwelling unit. Lack of access to all parts of the dwelling unit establishes a rebuttable presumption that no common household exists.

GROUP HOME. A facility for the care and maintenance of not fewer than seven nor more than 12 children, supervised by the New York State Board of Social Welfare, and operated pursuant to and meeting any additional construction requirements of Section 374-c of the *New York State Social Services Law* and applicable regulations of the New York State Department of

Social Services. Such a facility occupied by more than 12 children shall be classified as Group I-1.

PERSONAL CARE SERVICE. The care of residents who do not require chronic or convalescent medical or nursing care. Personal care involves responsibility for the safety of the resident while inside the building.

RESIDENTIAL CARE/ASSISTED LIVING FACILITIES. A building or part thereof housing persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides personal care services. The occupants are capable of self-preservation and are capable of responding to an emergency situation without physical assistance from staff. This classification shall include, but not be limited to, the following: residential board and care facilities, assisted living facilities, halfway houses, congregate care facilities, social rehabilitation facilities, alcohol and drug abuse rehabilitation centers and convalescent facilities.

ROOMING HOUSE. A dwelling (i) which was originally erected as a single- or two-family private dwelling pursuant to the *New York City Building Code* in effect prior to December 6, 1968, (ii) which is a “Class B converted dwelling” as such term is defined in the *New York City Housing Maintenance Code*, and (iii) which has more than half of its habitable rooms as sleeping units. The creation of or conversion to a rooming house shall be limited by Section 27-2077 of the *New York City Housing Maintenance Code*.

SLEEPING UNIT. A dwelling unit, which may contain either toilet or kitchen facilities but not both. Any sleeping unit housing more than one family shall also be classified as a congregate living unit. The creation of or conversion to sleeping units shall be limited by Section 27-2077 of the *New York City Housing Maintenance Code*.

TRANSIENT. Occupancy of a dwelling unit or sleeping unit for not more than 30 days.

SECTION BC 311 STORAGE GROUP S

311.1 Storage Group S. Storage Group S occupancy includes, among others, the use of a building or structure, or a portion thereof, for storage, such as for warehouses, storage rooms, freight depots and distribution centers, when not classified as a hazardous occupancy.

311.2 Moderate-hazard storage, Group S-1. Buildings occupied for storing any flammable or combustible materials that are likely to permit the development and production of fire with moderate rapidity including, but not limited to, storage of the following:

Aerosols, Levels 2 and 3

Aircraft hangar (storage and repair)

Bags; cloth, burlap and paper

through the elevator lobby.]

[403.9.2 Impact resistant elevator shafts. Elevator shafts shall be constructed of impact resistant walls. Minimum impact resistance standards shall be established by rules of the department.]

[403.10 Reserved.]

[403.11 Emergency power systems. An emergency power system complying with Section 2702 shall be provided for emergency power loads specified in Sections 403.11.1 and 403.11.2.]

[403.11.1 Emergency power loads in occupancies other than R-2. In buildings of any occupancy group other than Group R-2, the following are classified as emergency power loads:

1. Exit signs and means of egress illumination required by Chapter 10; and
2. Elevator car lighting; and
3. Emergency voice/alarm communications systems; and
4. Automatic fire detection systems; and
5. Fire alarm systems; and
6. Power and lighting for the fire command center required by Section 403.8; and
7. Electrically powered fire pumps; and Ventilation and automatic fire detection equipment for smokeproof enclosures; and
8. Elevators in accordance with Section 3003; and
9. Stair pressurization systems when provided.]

[403.11.2 Emergency power loads in Group R-2 occupancies. Group R-2 occupancies in buildings greater than 125 feet (38 100 mm) in height shall be required to provide an emergency power system to support the following loads:

1. Exit signs and means of egress illumination required by Chapter 10;
2. At least one elevator serving all floors, or one elevator per bank where different banks serve different portions of the building;
3. Emergency voice communications systems; and
4. Electrically powered fire pumps, unless electrical power to the motor is taken ahead of the main from the street side of the house service switch.

Where a generator is used as the emergency power system, diesel or gas shall be permitted as the fuel source in accordance with Section 2702.1.]

[403.12 Stairway door operation. Doors opening into interior stair enclosures shall not be locked from either side. However, a door locked from the stair side may be permitted provided that such door is equipped with an automatic fail safe system for opening in the event of the activation of any automatic fire detection system, or when any elevator recall is activated, or when any signal is received from the fire command center. Such door shall be deemed as openable from the stair side. Stair reentry signs shall be posted throughout the stairway indicating that reentry is provided only during fire emergencies. Such signs shall be in accordance with Section 1026.4.2.]

[403.12.1 Stairway communications system. A telephone or other two-way communications system connected to an approved constantly attended station shall be provided at not less than every fifth floor in each required stairway where stair side doors are locked.]

[403.13 Smokeproof exit enclosures. Every required stairway serving occupied floors more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access shall comply with Sections 909.20 and 1019.1.8.

Exception for R-2 occupancies: Smokeproof enclosures are not required in occupancy Group R-2 unless provided pursuant to Exception 2 of Section 912.1.]

[403.14 Seismic considerations. For seismic considerations, see Chapter 16.]

[403.15 Impact-resistant stair enclosures. Exit stair enclosures shall be constructed of impact-resistant walls. Minimum impact-resistance standards shall be established by rules of the department.]

[403.16 Exit path markings. All high-rise buildings shall be provided with photoluminescent exit path markings conforming to Section 1026.]

Exception: Exit paths serving Group R-2.]

403.[17]7 Outdoor air intakes. For high-rise buildings, outdoor air intakes serving spaces above the second story and serving spaces greater than 10,000 square feet (929 m²) of floor area shall be located in accordance with Section 401.5 of the *New York City Mechanical Code*.

Exception: Group R-2 occupancy.

403.[18]8 Open web steel joists. The use of open web steel joists shall be prohibited in high-rise buildings until the commissioner promulgates rules establishing minimum acceptable fireproofing methods.

GRANDSTAND. Tiered seating [facilities] supported on a dedicated structural system and two or more rows high and is not a building element (see “Bleachers”).

GUARD. A building component or a system of building components located at or near the open sides of elevated walking surfaces that minimizes the possibility of a fall from the walking surface to a lower level.

HANDRAIL. A horizontal or sloping rail intended for grasping by the hand for guidance or support.

MEANS OF EGRESS. A continuous and unobstructed path of vertical and horizontal egress travel from any occupied portion of a building or structure to a public way. A means of egress consists of three separate and distinct parts: the exit access, the exit and the exit discharge.

MERCHANDISE PAD. A merchandise pad is an area for display of merchandise surrounded by aisles, permanent fixtures or walls. Merchandise pads contain elements such as nonfixed and moveable fixtures, cases, racks, counters and partitions from which customers browse or shop.

NOSING. The leading edge of treads of stairs and of landings at the top of stairway flights.

OCCUPANT LOAD. The number of persons for which the means of egress of a building or portion thereof is designed.

OPEN EXTERIOR SPACE. A street or other public space; or a yard, court, or plaza open on one or more sides and unroofed or open on all sides, which provides egress to a street or public space.

PANIC HARDWARE. A door-latching assembly incorporating a device that releases the latch upon the application of a force in the direction of egress travel.

PHOTOLUMINESCENT. Having the property of emitting light that continues for a length of time after excitation by visible or invisible light has been removed.

PUBLIC WAY. A street, alley or other parcel of land open to the outside air leading to a street, that has been deeded, dedicated or otherwise permanently appropriated to the public for public use and which has a clear width and height of not less than 10 feet (3048 mm).

RAMP. A walking surface that has a running slope steeper than one unit vertical in 20 units horizontal (5-percent slope).

REFUGE AREA. A floor area to which egress is made through a horizontal exit.

SAFE AREA. An interior or exterior space that serves as a means of egress by providing a transitional area from, and that also serves as a normal means of entry to, an assembly space.

SCISSOR STAIR. Two interlocking stairways providing two separate paths of egress located within one stairwell enclosure.

2. Aisle accessways in Group A.
3. Dwelling units and sleeping units in Groups I-1, R-1, R-2 and R-3.
4. Sleeping units of Group I occupancies.
5. Areas beyond safe dispersal area where such areas are provided, and designed in accordance with Section 1027.6, Exceptions 1 through 5.

1006.2 Illumination level. The means of egress illumination level shall not be less than 1 foot-candle (11 lux) at the walking surface [level].

Exceptions:

1. For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the [floor level] walking surface is permitted to be reduced during performances to not less than 0.5 foot-candle (5.38 lux) for aisles and cross aisles, and 0.2 foot-candle (2.15 lux) for other portions of the space, provided that the required illumination is automatically restored upon activation of a premise's fire alarm system where such system is provided. Step lights shall be provided in accordance with Section [1024.11.4] 1028.11.4.
2. Safe areas in assembly occupancies shall be illuminated in accordance with Section [1024.17.3.2] 1028.17.3.2.
3. Open exterior spaces used to receive occupants as Class 1 or 2 exits in assembly occupancies shall be illuminated in accordance with Section [1024.17.4] 1028.17.4.
4. In exits in buildings that contain photoluminescent exit path markings tested in laboratory conditions with 2 foot-candles (22 lux) of activating illumination, the illumination level shall not be less than 2 foot-candles (22 lux).

1006.2.1 Sensors and controls. Automatic, occupant sensor or photosensor lighting controls shall be permitted within means of egress, provided that the illumination level is not reduced to a level below the minimum requirements of Section 1006.2, and the switch controllers are equipped for fail-safe operation ensuring that if the sensor or control fails, the lighting levels will be at the levels required by Section 1006.2.

1006.3 Illumination emergency power. The power supply for means of egress illumination shall normally be provided by the premise's electrical supply.

In the event of power supply failure, an emergency electrical system shall automatically illuminate all of the following areas:

1. [Exit access corridors, passageways and aisles] Aisles and unenclosed egress stairways in rooms and spaces [which] that require two or more means of egress.

2. [Exit access corridors,] Corridors, exit enclosures and exit passageways [and exit stairways located in buildings required to have two or more exits].
3. Exterior egress components at other than [the level] 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 [1023.1] 1027.1, in buildings required to have two or more exits.
5. [The portion of the exterior exit discharge immediately adjacent to exit] Exterior landings as required by Section 1008.1.6 for exit discharge doorways in buildings required to have two or more exits.

1006.3.1 Emergency power source. 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 [Section 2702] Chapter 27.

1006.3.2 Performance of system. Emergency lighting facilities shall be arranged to provide initial illumination that is at least an average of [2] 1 foot-candle ([22] 11 lux) and a minimum at any point of [0.2] 0.1 foot-candle ([2.15] 1 lux) measured along the path of egress at floor level. Illumination levels shall be permitted to decline to 0.6 foot-candle (6.46 lux) average and a minimum at any point of 0.06 foot-candle (0.646 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. In buildings that contain photoluminescent exit path markings tested in laboratory conditions with greater than 1 foot-candle (11 lux) of activating illumination, the initial illumination shall not be less than that required for activating the approved photoluminescent illumination.

1006.4 Reserved.

SECTION BC 1007 ACCESSIBLE MEANS OF EGRESS

1007.1 Accessible means of egress required. Accessible means of egress shall comply with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress [is] are required by Section [1014.1] 1015.1 or [1018.1] 1021.1 from any accessible space, [at least two accessible means of egress shall be provided to] each accessible portion of the space shall be served by not less than two accessible means of egress.

Exceptions:

1. Accessible means of egress are not required in alterations to existing buildings where the level of alterations does not trigger full compliance of accessibility pursuant to Section 28-101.4 of the *Administrative Code*.

1. Such barrier separating the above-grade portion of the vertical exit from the portion below grade shall not be required in Group E and R-3 occupancies.
2. Such barrier separating the above-grade portion of the vertical exit from the portion below grade shall not be required where the stairway design is intended to continue the path of egress through a below grade level.

[1019.1.7] 1022.8 Stairway [floor number and] identification and floor level signs. Signs identifying stairways and floor levels shall comply with Sections 1022.8.1 through 1022.8.4.

1022.8.1 Stairway identification signs. A stairway identification sign indicating each stair by alphabetic letter shall be posted on both sides of each stair door.

1022.8.2 Floor identification signs. A floor identification sign shall be provided at each floor landing [in interior vertical] within exit enclosures connecting more than three stories [designating the]. Such sign shall designate:

1. The floor level[, the];
2. The terminus of the top and bottom of the [stair] exit enclosure; [and the]
3. The identification of the stair or ramp[. The signage shall also state the];
4. The story of[, and the direction to,] the exit discharge; and [the]
5. The availability of roof access from the [stairway] enclosure for the Fire Department.

[Each stair shall be identified by an alphabetic letter. Stairway identification signs shall be provided on both sides of each stair door.] The signs shall be located 5 feet ([1524mm] 1524 mm) above the floor landing in a position [which] that is readily visible when the doors are in the open and closed positions.

1022.8.3 Tactile floor level identification signs. Floor level identification signs in tactile characters complying with ICC A117.1 shall be located at each floor level landing adjacent to the door on the stair side.

1022.8.4 Signage requirements. Stairway and floor identification signs required by Sections 1022.8.1 and 1022.8.2 shall comply with all of the following requirements:

1. The signs shall be a minimum size of 18 inches (457 mm) by 12 inches (305 mm).
2. The alphabetic letters designating the identification of the stair enclosure shall be a minimum of 1½ inches (38 mm) in height.

3. The number designating the floor level shall be a minimum of 5 inches (127 mm) in height and located in the center of the sign.
4. All other lettering and numbers shall be a minimum of 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. When signs required by Section 1022.8 are installed in interior exit enclosures of buildings subject to Section 1024, the signs shall be made of the same luminous materials as required by Section 1024.4.

[1019.1.8] **1022.9 Smokeproof enclosures and pressurized stairways.** In buildings required to comply with Section [403.13 or 405.8.2] ~~403 or 405~~, each of the [exits of a building that serves stories where the] exit enclosures serving a story with a floor surface [is] located more than 75 feet ([22 860mm] 22 860 mm) above the lowest level of Fire Department vehicle access or more than 30 feet (9144 mm) below the finished floor of a level of exit discharge serving such [floor levels] stories shall be a smokeproof enclosure or pressurized stairway in accordance with Section 909.20.

[1019.1.8.1 **Enclosure exit**] **1022.9.1 Termination and extension.** A smokeproof enclosure or pressurized stairway shall terminate at an exit [into] discharge or a public way [or into an exit passageway, yard or open space having direct access to a public way]. The smokeproof enclosure or pressurized stairway shall be permitted to be extended by an exit passageway in accordance with Section 1022.2. The exit passageway shall be without [other] openings other than the fire door assembly required by Section 1022.2 and those necessary for egress from the exit passageway. The exit passageway shall be separated from the remainder of the building by 2-hour [fire-resistance-rated construction] fire barriers constructed in accordance with Section 707 or horizontal assemblies construction in accordance with Section 712, or both.

Exceptions:

1. Openings in the exit passageway serving a smokeproof enclosure are permitted where the exit passageway is protected and pressurized in the same manner as the smokeproof enclosure, and openings are protected as required for access from other floors.
2. Openings in the exit passageway serving a pressurized stairway are permitted where the exit passageway is protected and pressurized in the same manner as the pressurized stairway.
3. The fire barrier separating the smokeproof enclosure or pressurized stairway from the exit passageway is not required, provided the exit passageway is protected and

Except as permitted in Section 402.4.6, openings in exit passageways other than [unexposed] exterior openings shall be limited to those necessary for exit access to the exit passageway from normally occupied spaces and for egress from the exit passageway.

Where [interior] an exit [enclosures are] enclosure is extended to [the exterior of a building by] an exit discharge or a public way by an exit passageway, the [door assembly from the exit enclosure to the] exit passageway shall [be protected by a fire door conforming to the requirements in Section 715.3. Fire door assemblies in exit passageways shall] also comply with Section [715.3.4] 1022.2.1.

Elevators shall not open into an exit passageway.

[1020.5] 1023.6 Penetrations. Penetrations into and openings through an exit passageway are prohibited except for required exit doors, equipment and ductwork necessary for independent pressurization, sprinkler piping, standpipes, electrical raceway for fire department communication and electrical raceway serving the exit passageway and terminating at a steel box not exceeding 16 square inches (0.010 m²). Such penetrations shall be protected in accordance with Section [712] 713. There shall be no penetrations or communicating openings, whether protected or not, between adjacent exit passageways.

SECTION 1024

LUMINOUS EGRESS PATH MARKINGS

1024.1 General. Approved luminous egress path markings delineating the exit path shall be provided in all high-rise buildings subject to Section 403.5 having occupied floors located more than 75 feet (22 860 mm) above the lowest level of Fire Department vehicle access in accordance with Sections 1024.1 through 1024.9.

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.

1024.2 Required Markings. Egress path markings shall be provided in exit enclosures, including vertical exit enclosures, horizontal exits, and exit passageways, in accordance with Sections 1024.2.1 through 1024.2.9. Entrances to exit enclosures shall be provided with exit signs in compliance with Section 1024.2.6.1.

1024.2.1 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 at a maximum of ½ inch (13 mm) from the

leading edge of the step and the stripe shall overlap the leading edge of the step by not more than ½ inch (13 mm) down the vertical face of the step. Outlining strips on steps shall comply with Figure S101.1(3) of Appendix S.

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

1024.2.2 Landings. The leading edge of landings shall be marked with a stripe consistent with the dimensional requirements for steps. Strips on landings shall comply with Figure S101.1(4) of Appendix S.

1024.2.3 Handrails. All 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). Strips on handrails shall comply with Figure S101.1(6) of Appendix S.

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

1024.2.4 Perimeter demarcation lines. Stair landings and other floor areas within exit enclosures, 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.

1024.2.4.1 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. Perimeter demarcation lines shall comply with Figure S101.1(6) of Appendix S.

Exceptions:

1. Demarcation lines shall not extend in front of exit doors that lead out of an exit enclosure and through which occupants must travel to complete the exit path.
2. Demarcation lines shall be continuous but need not extend into an area such as a dead end or an obstruction that is selected not to be outlined because it is not part of the egress path.

1024.2.4.2 Wall-mounted demarcation lines. Perimeter demarcation lines shall be placed on the wall with the bottom edge of the stripe no 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. Where the wall line is broken by a door, demarcation lines on walls shall continue across the face of the door or transition to the floor and extend across the floor in front of such door. Wall-mounted demarcation lines shall comply with Figure S101.1(8) of Appendix S.

Exceptions:

1. Demarcation lines shall not extend in front of exit doors that lead out of an exit enclosure and through which occupants must travel to complete the exit path.
2. Perimeter demarcation lines are not required on the sides of steps.
3. Perimeter demarcation lines are not required where an area such as a dead end or an obstruction is selected not to be outlined because it is not part of the egress path, the demarcation lines shall not be required in such area provided that a demarcation line is continuous across the floor.

1024.2.4.3 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 complementary extension of the floor-mounted demarcation line, thus forming a continuous marking. Transitioning demarcation lines shall comply with Figure S101.1(9) of Appendix S.

1024.2.5 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 no less than 1 inch (25 mm) in width comprised of a pattern of alternating equal bands, of luminescent luminous material and black, with the alternating bands no 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. Markings on obstacles shall comply with Figure S101.1(7) of Appendix S.

1024.2.6 Doors from exit enclosures. Doors through which occupants within an exit enclosure must pass in order to complete the exit path, and doors serving horizontal exits, shall be provided with markings complying with Sections 1024.2.6.1 through 1024.2.6.3. Exit discharge doors shall further comply with Section 1024.2.6.1.3.

1024.2.6.1 Emergency exit symbol. The doors shall be identified by a low-location luminous emergency exit symbol complying with Section 1024.6.1. The exit symbol shall be a minimum of 4 inches (102 mm) in height and shall be mounted on either the door

itself, or the wall surface directly adjacent to the door and shall be in accordance with Section 1024.2.6.1.1 or 1024.1.6.1.2. Such signs shall be no higher than 18 inches (457 mm) above the finished floor.

1024.2.6.1.1 Door-mounted option. The vertical centerline of the sign shall be centered with the door, or shall be in that half of the door, either the right or left, that contains the latch. In case of double-doors, both doors shall be marked and the signs shall be centered with the doors. Arrows may be omitted on door-mounted signs. Door-mounted signs shall comply with Figure S101.1(1) in Appendix S.

1024.2.6.1.2 Wall-mounted option. Signs shall be mounted on the wall surface directly adjacent to the latch-side of the door, as close as practicable to the door such that in no case shall there be more than 6 inches (152 mm) from the door to the edge of the sign. In case of double-doors, signs shall be placed on the wall surface directly adjacent to the hinge-sides of both doors. Where the wall surface directly adjacent to the latch side is too narrow to accommodate the sign, the sign may be placed on the adjacent perpendicular wall. Arrows shall be required on wall-mounted signs. Wall-mounted signs shall comply with Figure S101.1(2) in Appendix S.

1024.2.6.1.3 Exit discharge doors. At doors serving as exit discharge, a sign in compliance with Section 1024.2.6.1.1 or 1024.2.6.1.2 shall contain supplemental directional text such as “FINAL EXIT”, “EXIT THROUGH LOBBY”, or “EXIT TO STREET” in sans serif letters one-half as high as the word EXIT. Exit discharge door sign shall comply with Figure S101.1(14) in Appendix S.

1024.2.6.2 Door hardware markings. Door hardware shall be marked with no less than 16 square inches (406 mm²) of luminous material. This marking shall be located behind, immediately adjacent to or on the door handle and/or escutcheon. Where a panic bar is installed, such material shall be no less than 1 inch (25 mm) wide for the entire length of the actuating bar or touchpad. Additional hardware markings may include ANSI Z535.1 safety green graphics such as arrows indicating door handle turning directions, or emergency egress symbols as per NFPA 170, the word “EXIT”, the word “PUSH”, and similar egress-related symbols provided the minimum 16 square inches (406 mm²) of luminous materials is maintained.

1024.2.6.3 Door frame markings. The top and sides of the door frame shall be marked with a solid and continuous 1 inch to 2 inch (25 mm to 51 mm) wide 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.

1024.2.7 Directional signage upon entering an exit enclosures. Luminous directional signs designed in compliance with Section 1024.6.1 shall be placed in the exit enclosure at every entrance thereto such that they are readily visible when the doors are in the open and closed positions. Such directional sign shall include an arrow indicating the direction of travel. The word “EXIT” shall not be required. The signs shall be located such that their top

edge is within 18 inches (457 mm) above the finished floor. Directional signs shall comply with Figure S101.1(1) in Appendix S.

1024.2.8 Directional signage at transfer levels and where egress direction is not clear. Luminous directional signs designed in compliance with Section 1024.6.1 and installed at heights indicated in Section 1024.2.7 shall be placed on the wall at transfer levels and wherever egress direction is not clear including at turns along horizontal extensions; at transitions from vertical to horizontal direction and at a “T” intersection. These directional signs shall include arrows indicating the direction of travel. The word “EXIT” shall not be required. Directional signs at transfer levels shall comply with Figure S101.1(10) in Appendix S.

1024.2.9 “Not An Exit” sign. Luminous signs shall be placed on doors along the egress path that lead to dead ends (mechanical rooms, storage closets, etc.). Such signs shall contain sans serif lettering at least 1 inch (25 mm) high reading “NOT AN EXIT”. The nonluminous portion of such signs shall not be green. Directional signs shall comply with Figure S101.1(11) in Appendix S.

1024.3 Uniformity. Placement and dimensions of markings shall be consistent and uniform throughout the same exit enclosure.

1024.3.1 Solid and continuous. For the purposes of this section, solid and continuous means without gaps or interruption, except as required for the control of expansion and contraction. A series of dashes, chevrons, dots, or other similar patterns is not solid and continuous. Luminous materials shall be considered solid and continuous if they occasionally contain the following safety green (ANSI Z535.1) symbols or text:

1. The word “EXIT”;
2. Egress symbol as per NFPA 170;
3. Direction arrows as per NFPA 170; or
4. Other text or symbols as approved by the commissioner.

1024.4 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 are not limited to, self-luminous materials and photoluminescent materials. Materials shall comply with either:

1. UL 1994; or
2. ASTM E 2072, except that the charging source shall be 1 foot-candle (11 lux) of fluorescent illumination for 60 minutes, and the minimum luminance shall be 30 millicandelas per square meter at 10 minutes and 5 millicandelas per square meter after 90 minutes.

1024.4.1 Labeling. All approved materials shall be labeled and identified with the manufacturer's name, model number and the name of the approved agency in a minimum of 6 point type with at least one such identification on each piece of material installed. However, labeling is not required for pieces of material less than 1 foot in length that are placed in immediate proximity of an identical model that is labeled. Materials may include supplemental identifying information such as the manufacture's name, trade name, or "NYC".

1024.5 Illumination. Exit enclosures where photoluminescent exit path markings are installed shall be provided with the minimum means of egress illumination required by Section 1006 for at least 60 minutes prior to periods when the building is occupied.

1024.6 General standards. Luminous materials shall comply with the design standards of Sections 1024.6.1 and 1024.6.2.

1024.6.1 Design of door and directional signs. Unless otherwise specified, all photoluminescent door signs and directional signs:

1. May be either positive or negative image;
2. Shall be made with the non-photoluminescent portions of the signs in safety green as per ANSI Z535.1; and
3. Shall include three components:
 - 3.1. The word "EXIT" printed in sans serif letters at least 4 inches high (102 mm) with strokes no less than ½ inch (13 mm);
 - 3.2. An emergency exit symbol at least 4 inches high (102 mm), complying with NFPA 170; and
 - 3.3. An arrow at least 2 ¾ inches (70 mm) high, complying with NFPA 170.

Design of door and directional sign shall comply with Figures S101.1(10), S101.1(14), S101.1(15) and S101.1(16) of Appendix S.

1024.6.1.1 Additional text for sign subject to this section. Additional descriptive text is permitted, provided such words are in sans serif letters and, where the word "EXIT" or the emergency symbol is required on such sign, such a descriptive text is no more than one-half high as any the word "EXIT" or the emergency exit symbol.

1024.6.2 Figures. The figures in Appendix S are intended only for illustration, and where there is a conflict between the figures and this section, this section shall govern.

1024.7 Voluntary Insulation. Where luminous egress path markings are not required but are voluntarily installed in the exit path, such markings shall comply with Section 1024.

1024.8 Special Inspection. Luminous exit path markings shall be subject to special inspection in accordance with Sections 1024.8.1 through 1024.8.3.

1024.8.1 Inspection. A registered design professional shall verify that all components have been visually inspected, both with the normal lighting turned on and with the normal and emergency lighting turned off.

1024.8.2 Product identification. A registered design professional shall review the manufacturer product literature and information from the testing agency and verify that the product installed are labeled as meeting the standards in Section 1024.4. The registered design professional shall verify which particular products were installed in which parts of the building.

1024.8.3 Paints. Where in situ painting was utilized, a registered design professional shall verify the installation and that the specified paint was utilized in accordance with the approved methods of application.

SECTION BC [1021] 1025 HORIZONTAL EXITS

[1021.1] 1025.1 Horizontal exits. Horizontal exits serving as an exit in a means of egress system shall comply with the requirements of this section. A horizontal exit shall not serve as the only exit from a portion of a building, and where two or more exits are required, not more than one-half of the total number of exits or total exit width shall be horizontal exits.

Exceptions:

1. Horizontal exits are permitted to comprise two-thirds of the required exits from any building or floor area for occupancies in Group I-2.
2. Horizontal exits are permitted to comprise 100 percent of the exits required for occupancies in Group I-3. At least 6 square feet (0.6 m²) of accessible space per occupant shall be provided on each side of the horizontal exit for the total number of people in adjoining compartments. [Every fire compartment for which credit is allowed in connection with a horizontal exit shall not be required to have a stairway or door leading directly outside, provided the adjoining fire compartments have stairways or doors leading directly outside and are so arranged that egress shall not require the occupants to return through the compartment from which egress originates. The area into which a horizontal exit leads shall be provided with exits adequate to meet the occupant requirements of this chapter, but not including the added occupant capacity imposed by persons entering it through horizontal exits from another area. At least one of its exits shall lead directly to the exterior or to an exit enclosure.]

[1025.5.1] 1029.5.1 Minimum size. The minimum horizontal area of the window well shall be 9 square feet (0.84 m²), with a minimum dimension of 36 inches (914 mm). The area of the window well shall allow the emergency escape and rescue opening to be fully opened.

[1025.5.2] 1029.5.2 Ladders or steps. Window wells with a vertical depth of more than 44 inches (1118 mm) shall be equipped with an approved permanently affixed ladder or steps. Ladders or rungs shall have an inside width of at least 12 inches (305 mm), shall project at least 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center (o.c.) vertically for the full height of the window well. The ladder or steps shall not encroach into the required dimensions of the window well by more than 6 inches (152 mm). The ladder or steps shall not be obstructed by the emergency escape and rescue opening. Ladders or steps required by this section are exempt from the stairway requirements of Section 1009.

SECTION BC [1026] 1030 SIGNAGE

[1026.1] 1030.1 Signage. Signage shall be provided in accordance with this section and the rules of the department.

[1026.2] 1030.2 Exit signs. Exits signs shall be provided in accordance with Section 1011.

[1026.3] 1030.3 Stairway and elevator identification signs. Stairway floor number and stairway identification signs shall be provided in accordance with Section [1019.1.7] 1022.8. Elevator identification and emergency signs shall be provided in accordance with Section 3002.3.

[1026.4] 1030.4 Door signs. For the following buildings, signs shall be posted and maintained on exit stair doors in accordance with this section:

1. Buildings or portions thereof occupied by Group B or arranged to be occupied by more than 100 persons above or below the street level or more than 500 persons in the entire building.
2. High-rise buildings subject to Section 403
3. Buildings where any stair side door is locked pursuant to Section [1008.1.8.7] 1008.1.9.10.

Exception: Signs shall not be required on exit stair doors opening directly to dwelling or sleeping units in occupancy Group R where permitted by Section [1013.6] 1014.4.

[1026.4.1] 1030.4.1 Occupied side. Where reentry is not provided from a stair to every floor, a sign that reads, "NO REENTRY FROM THIS STAIR" shall be posted on the occupied side of the stair door at every floor.

[1026.4.2] 1030.4.2 Stair side. On the stair side, signs shall be posted and maintained at all stair doors at every floor. Such signs shall be either:

1. **Reentry.** Where reentry is provided, a sign shall read, “REENTRY ON THIS FLOOR.”
2. **No reentry.** Where reentry is not provided on that floor, the sign shall read:
 - 2.1. “NO REENTRY”; where reentry is not provided on any floor;
 - 2.2. “NO REENTRY, NEAREST REENTRY ON THE AND FLOORS”; where reentry is provided on other floors; and
 - 2.3. “NO REENTRY. REENTRY IS PROVIDED ONLY DURING FIRE EMERGENCIES. NEAREST TELEPHONE ON THE AND FLOORS”; where stair side doors are locked in accordance with Section [403.12] 403.5.3.

[1026.4.3] 1030.4.3 Graphics. The lettering and numerals of the signs shall be at least $\frac{1}{2}$ inch (12.7 mm) high of bold type. The lettering and background shall be contrasting colors and the signs shall be securely attached approximately 5 feet (1524 mm) above the floor. The signs may be either independent or combined with floor and stairway identification signs.

[1026.5] 1030.5 Wall signs, stair side. In high-rise buildings subject to Section 403, signs shall be posted and maintained on the wall as follows:

1. **Reentry.** Where a reentry door is recessed, a supplementary sign complying with Section [1026.4.3] 1030.4.3, except that the lettering and numerals shall be at least 1 inch (25mm) 25 mm high, shall be securely attached on the wall of the landing and shall be readily visible to the evacuee on the stairs indicating the location of such recessed reentry door.
2. **No reentry.** Where there is no reentry from the stair, an additional sign complying with Subdivision 2 of Sections [1026.4.2] 1030.4.2 and [1026.4.3] 1030.4.3, except that the lettering and numerals shall be at least 1 inch (25 mm) high, shall be securely attached at the beginning of the descent into such portion of the stair on the wall of the landing and shall be readily visible to the evacuee on the stairs.

[1026.6] 1030.6 Accessible means of egress signs. Accessible means of egress shall be provided with signs in accordance with [Sections 1007.6.5 and 1007.7] Section 1007.9.

[1026.7] 1030.7 Capacity sign. Occupant load signs shall be provided in accordance with Section 1004.3.

[1026.8] **1030.8 Access-controlled doors.** Access-controlled doors shall be provided with signs in accordance with Section [1008.1.3.4] 1008.1.4.4.

[1026.9] **1030.9 Delayed egress locks.** Doors equipped with delayed egress shall be provided with signs in accordance with Sections [1008.1.8.6] 1008.1.9.7.

[1026.10] **1030.10 Signs in sleeping rooms.** A sign shall be posted on the inside of every door opening onto a corridor giving access to a sleeping room in all Group R- 1 occupancies. The sign shall contain a diagram showing the location where it is posted and the location and letter identification of the exit stairs on the floor. The diagram shall indicate the number of doors opening onto the public corridor which must be passed to reach each exit stair. The sign shall be at least 8 inches by 10 inches (203 mm by 254 mm), located on the inside of the door and securely attached. The top of such sign shall not be more than 6 feet (1829 mm) from the floor level. Such sign shall contain such additional information as the Fire Department may require.

[1026.11 Photoluminescent exit] 1030.11 Luminous egress path [marking] markings. [Photoluminescent exit] Luminous egress path markings in high-rise buildings subject to Section [403.16] 403.5.5 shall be provided in accordance with [this section. All exit path markings required herein shall be of an approved photoluminescent material. The markings shall be washable, nontoxic, nonradioactive, and if subjected to fire must be self extinguishing when the flame is removed. Exit path markings shall at a minimum be located:

1. On all doors opening to exits, exit passageways, or horizontal exits and shall be marked with the word "EXIT."
2. Within exit stairs, horizontal extensions in exit stairs, horizontal exits, and exit passageways

Exception: Within street-level lobbies where egress direction is immediately discernible.

Required markings for exit paths shall comply with the technical standards for installation and placement in accordance with rules promulgated by the commissioner] Section 1024 and Appendix S.

[1026.12] **1030.12 Materials for signs.** Signs required by this section shall be of metal or other durable material.

Subpart 11 (Chapter 11 of the New York City Building Code)

§1. Chapter 11 of the New York city building code, as added by local law number 33 for the year 2007, sections 1110.1 and 1110.2, as amended by local law 47 for the year 2012, is amended to read as follows:

CHAPTER 11 ACCESSIBILITY

be subject to periodic special inspection prior to concealment to determine compliance with the approved construction documents. Listed systems shall be inspected for compliance with their listing.] **Fire-resistant penetrations and joints.** Special inspections for through-penetrations, membrane penetration firestops, fire-resistant joint systems, and perimeter fire barrier systems that are tested and listed in accordance with Sections 713.4.1.1.2, 713.4.1.2, 714.3 and 714.4 shall comply with Sections 1704.27.1 and 1704.27.2.

[Exception: Through-penetration firestop systems may be inspected in accordance with ASTM E 2174-04 when authorized by the registered design professional of record and when the contractor applies the procedures established in that standard.]

1704.27.1 Penetration firestops. Inspections of penetration firestop systems that are tested and listed in accordance with Sections 713.4.1.1.2 and 713.4.1.2 shall be conducted by an approved special inspection agency in accordance with ASTM E 2174.

1704.27.2 Joint systems. Inspection of fire-resistant joint systems that are tested and listed in accordance with Sections 714.3 and 714.4 shall be conducted by an approved special inspection agency in accordance with ASTM E 2393.

[1704.26] 1704.28 Aluminum construction. The special inspections for structural aluminum elements of buildings and structures shall be as required by Section 1704.26.1.

[1704.26.1] 1704.28.1 Welding operations. All welding operations of aluminum elements shall be subject to special inspection for compliance with this code, AA [ASM-35, Parts 1A and 1B of the *Aluminum Design Manual*] ADM, and AWS D1.2.

Exception: Welding operations in connections where the calculated stresses in the welds are less than 50 percent of the basic allowable values. Such connections shall be specifically indicated on the approved construction documents.

[1704.27 Raising and moving of a building. A periodic special inspection shall be required where the lowest above-grade floor or the lowest subgrade floor of a building is to be raised, lifted, elevated or moved.]

1704.29 Flood zone compliance. Special inspection for flood zone compliance shall be as required by Appendix G of this code.

1704.30 Photoluminescent exit path markings. The installation of photoluminescent egress path markings shall be subject to special inspection. The special inspector shall verify that approved photoluminescent egress path markings were provided and installed in accordance with department rules and regulations, the approved construction documents, and manufacturer's instructions.

1704.31 Emergency power systems (generators). The installation of generators as part of emergency power systems shall be subject to special inspection. The special inspector shall: perform visual inspections; verify that the installations of all materials, equipment and signage

Subpart 45 (Appendix S of the New York City Building Code)

§1. The New York city building code is amended by adding a new appendix s, to read as follows:

APPENDIX S
SUPPLEMENTARY FIGURES FOR LUMINOUS EGRESS PATH MARKINGS

SECTION BC S101
GENERAL

S101.1 Scope. The figures of this appendix shall supplement the provisions of luminous egress path markings in Section 1024 of this code and are intended for illustrative purposes. Where there is a conflict between the figures and the provisions in Section 1024, the provisions in Section 1024 shall govern.

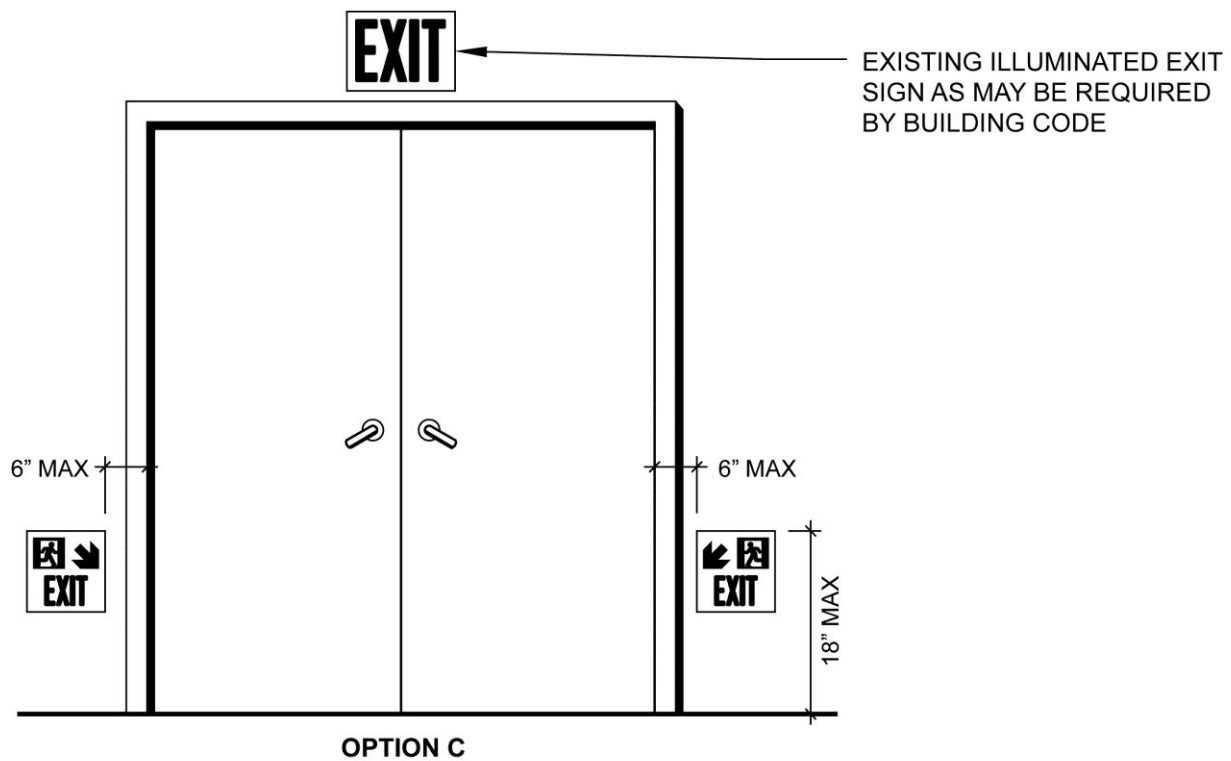
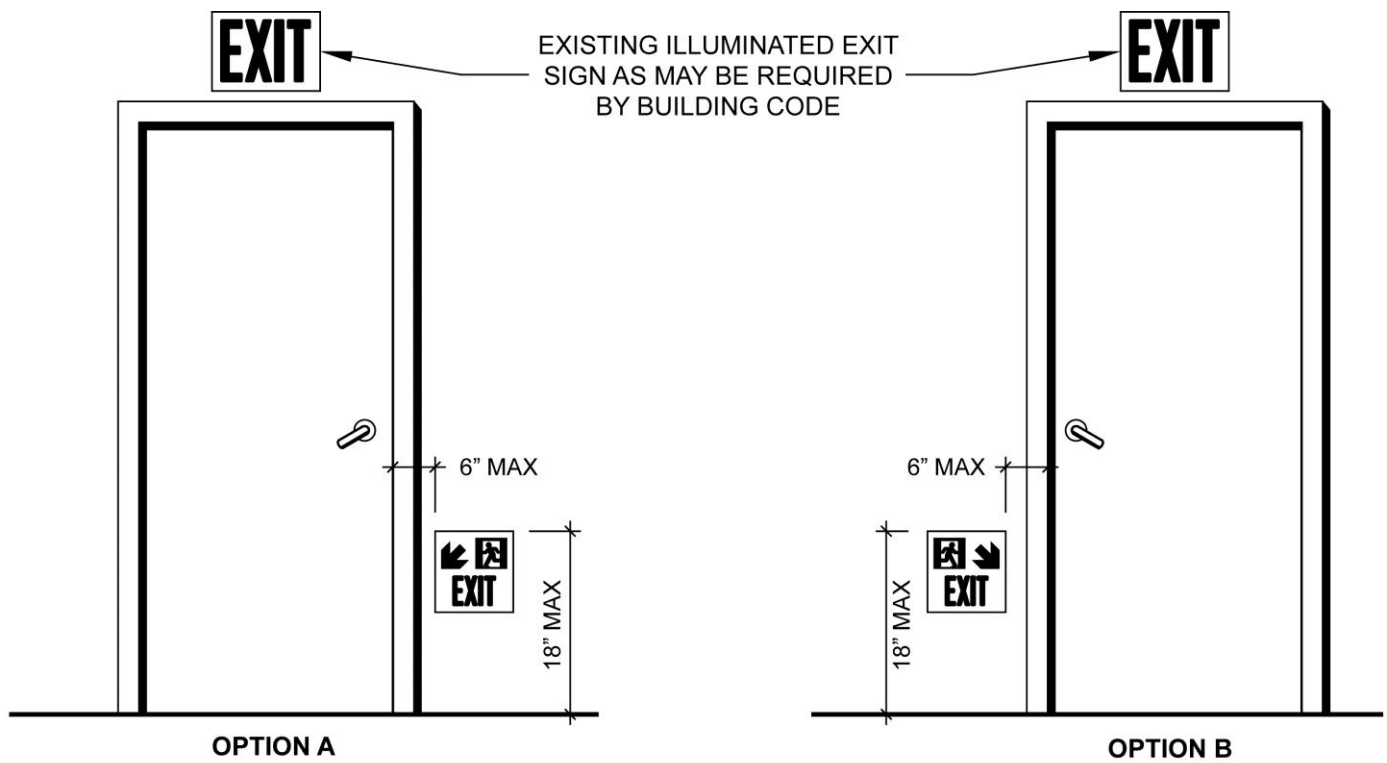


FIGURE S101.1(2)
WALL-MOUNTING OPTIONS FOR DOOR SIGNS

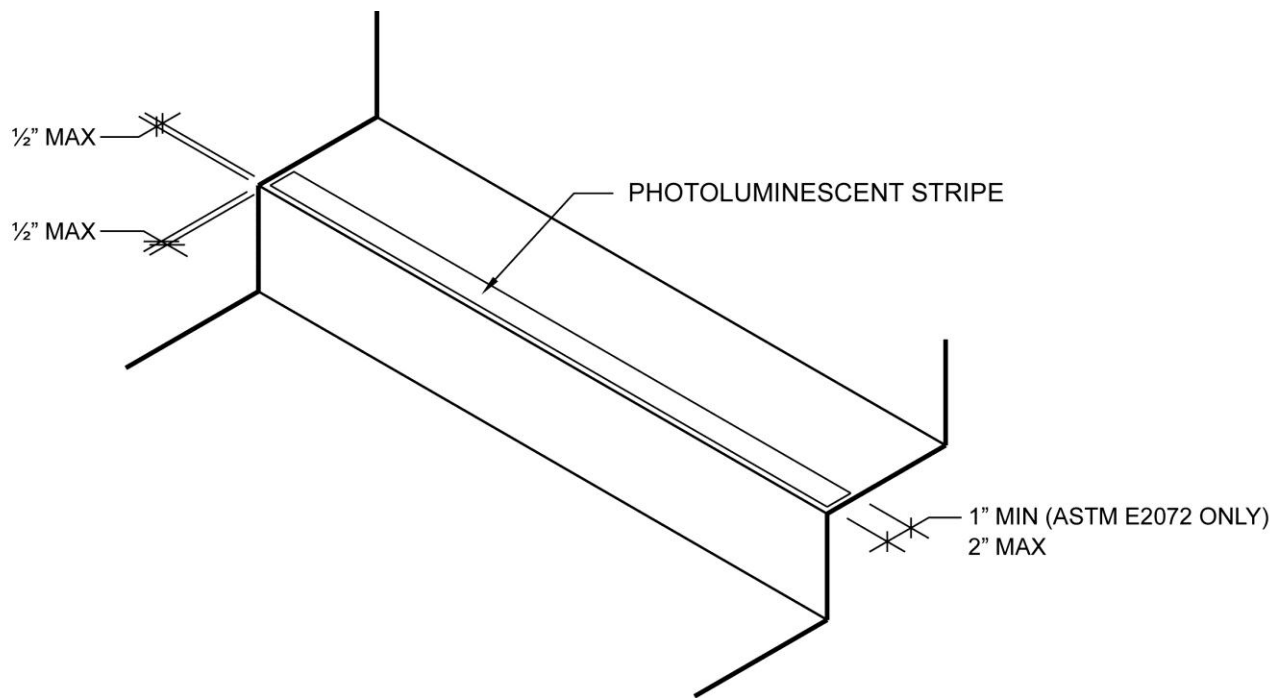


FIGURE S101.1(3)
PHOTOLUMINESCENT MARKING AT HORIZONTAL LEADING EDGE OF STEP

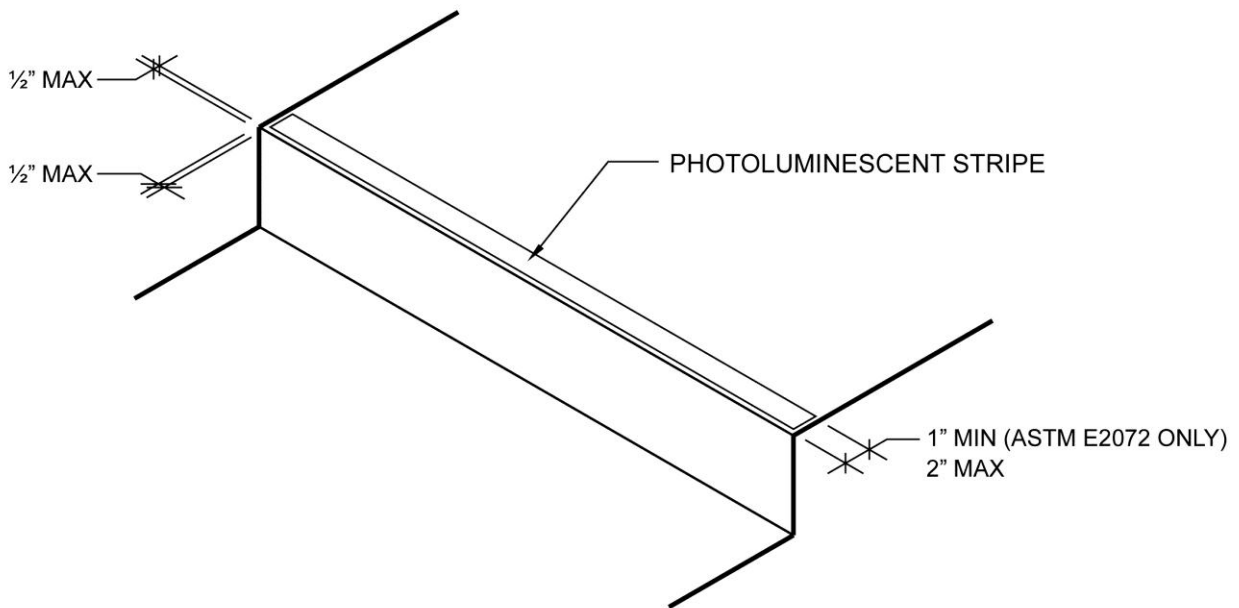
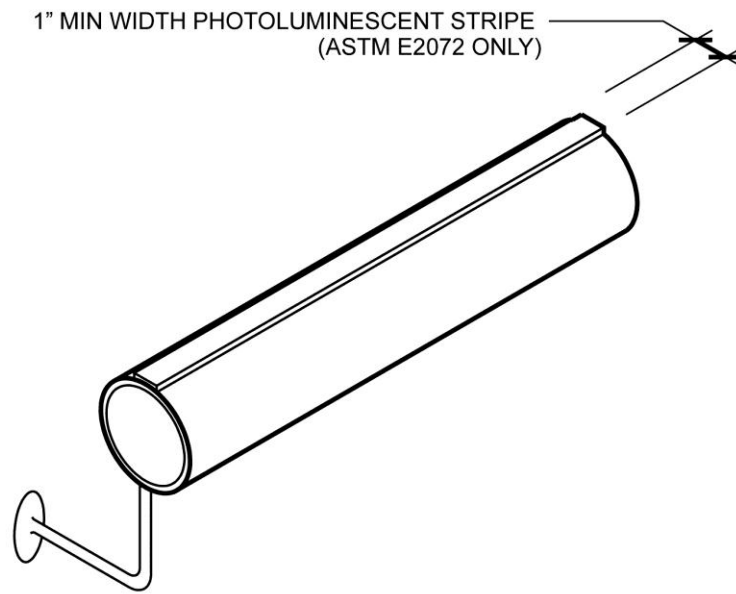
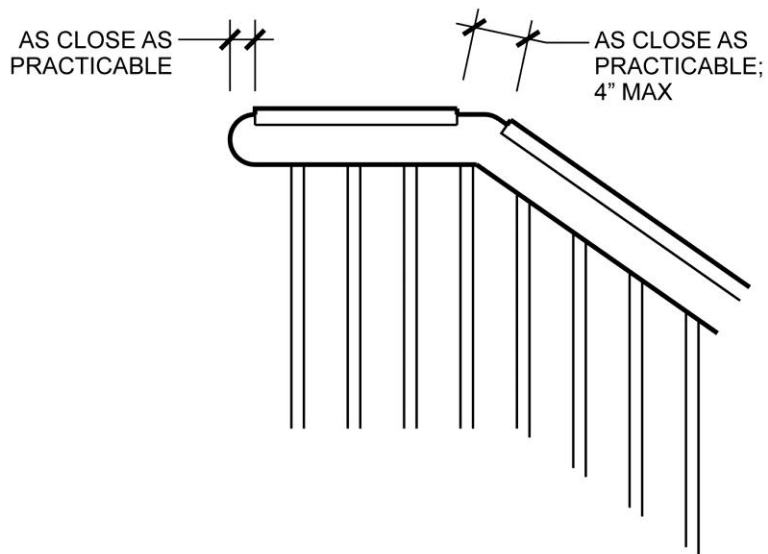


FIGURE S101.1(4)
PHOTOLUMINESCENT MARKING AT HORIZONTAL LEADING EDGE OF LANDING



CUT-AWAY ISOMETRIC OF HANDRAIL



ELEVATION OF HANDRAIL

FIGURE S101.1(5)
PHOTOLUMINESCENT MARKINGS ON HANDRAILS

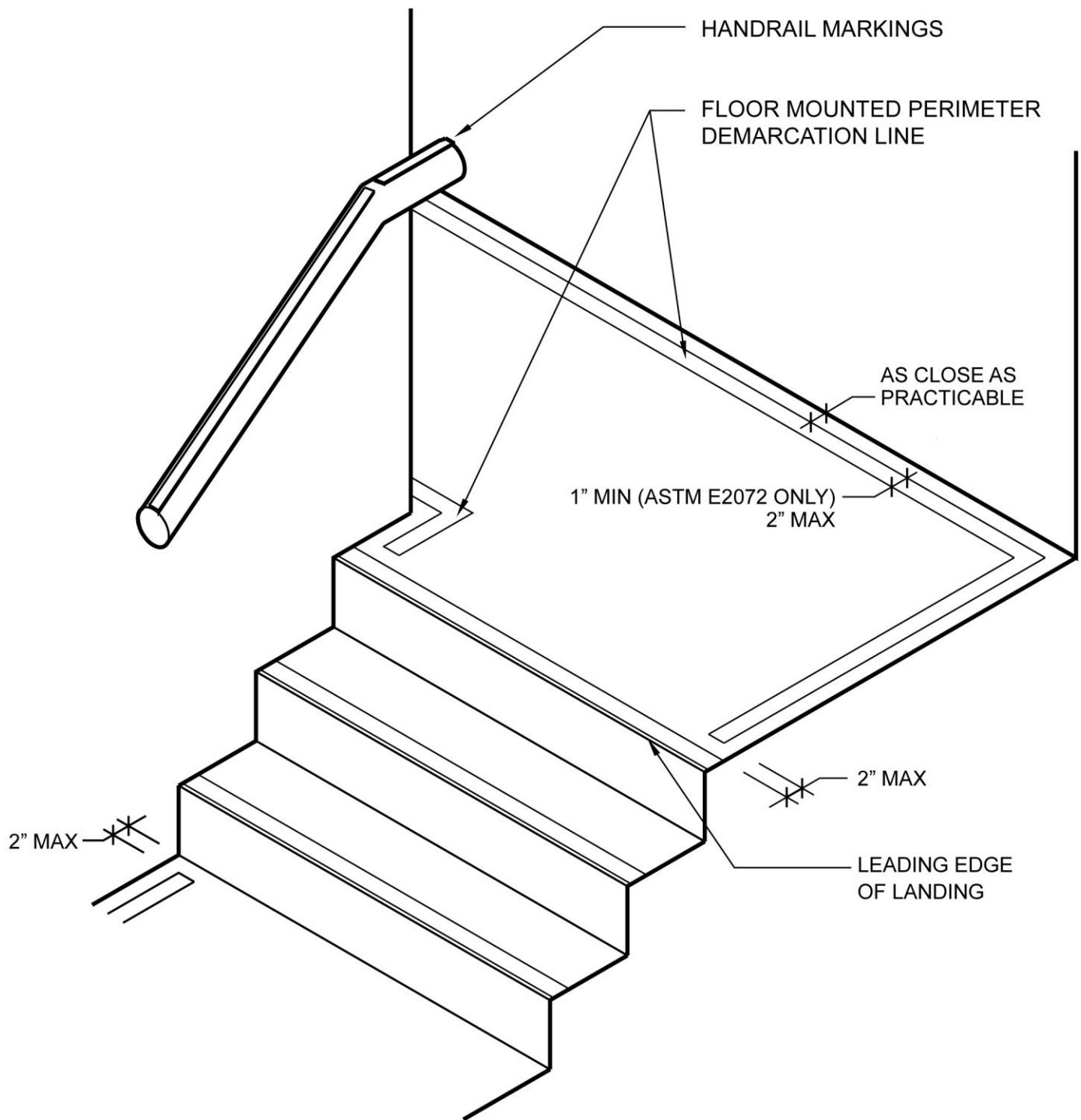
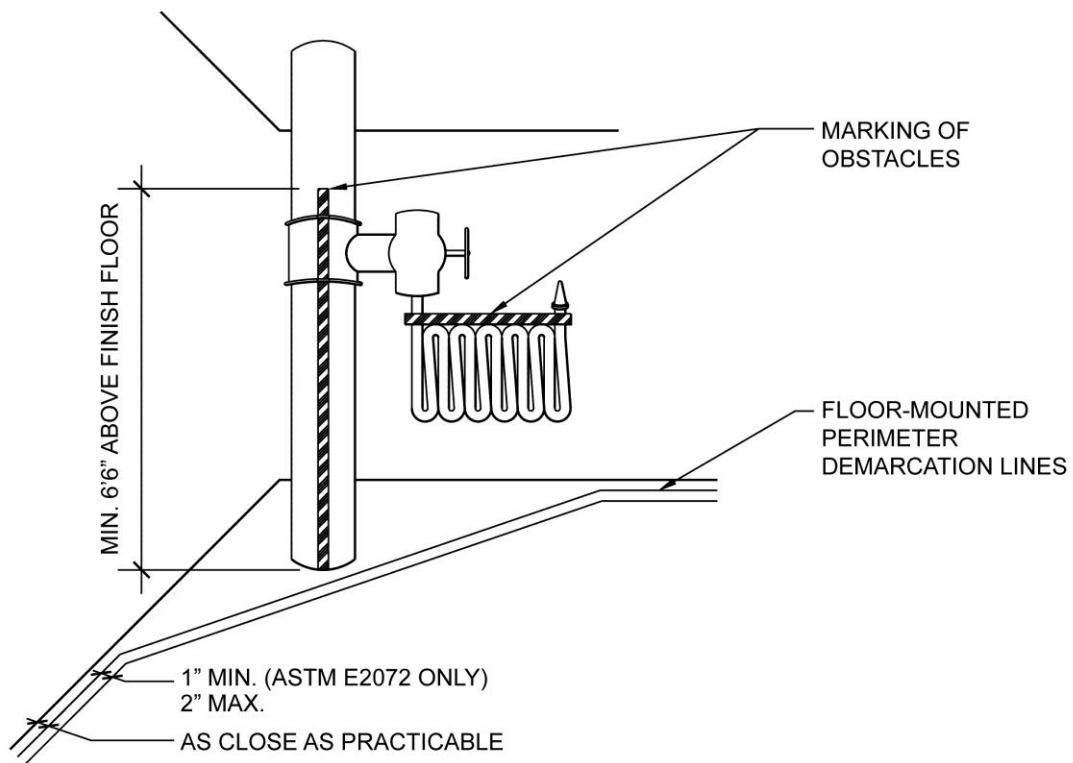
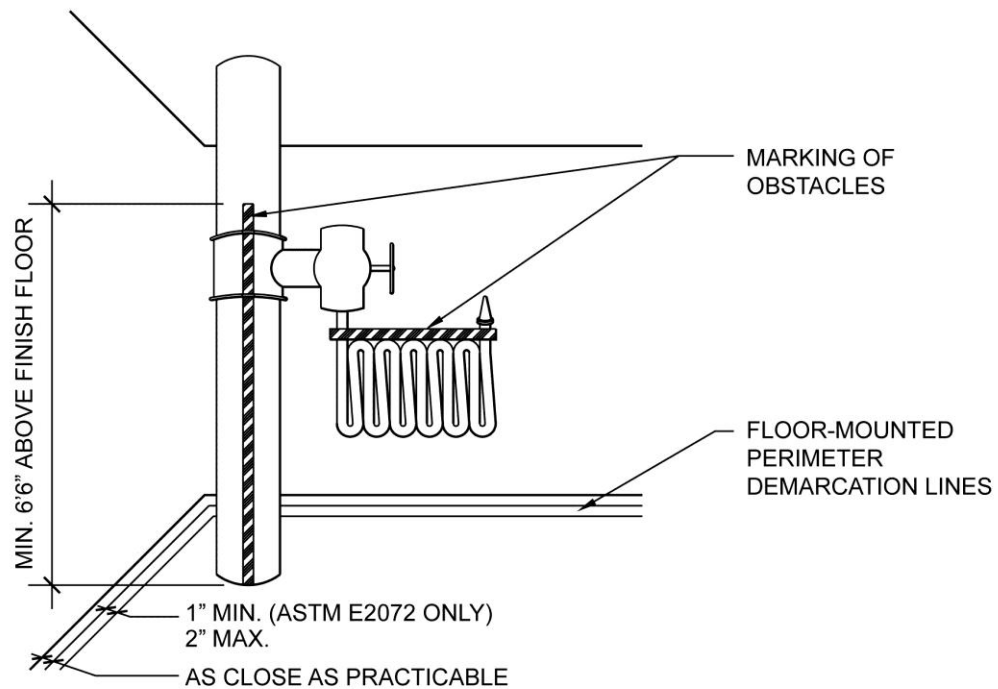


FIGURE S101.1(6)
FLOOR-MOUNTING OPTION FOR PHOTOLUMINESCENT PERIMETER DEMARCATION LINES



OPTION A



OPTION B

FIGURE S101.1(7)
OBSTACLE MOUNTING OPTIONS PHOTOLUMINESCENT PERIMETER DEMARCATION LINES

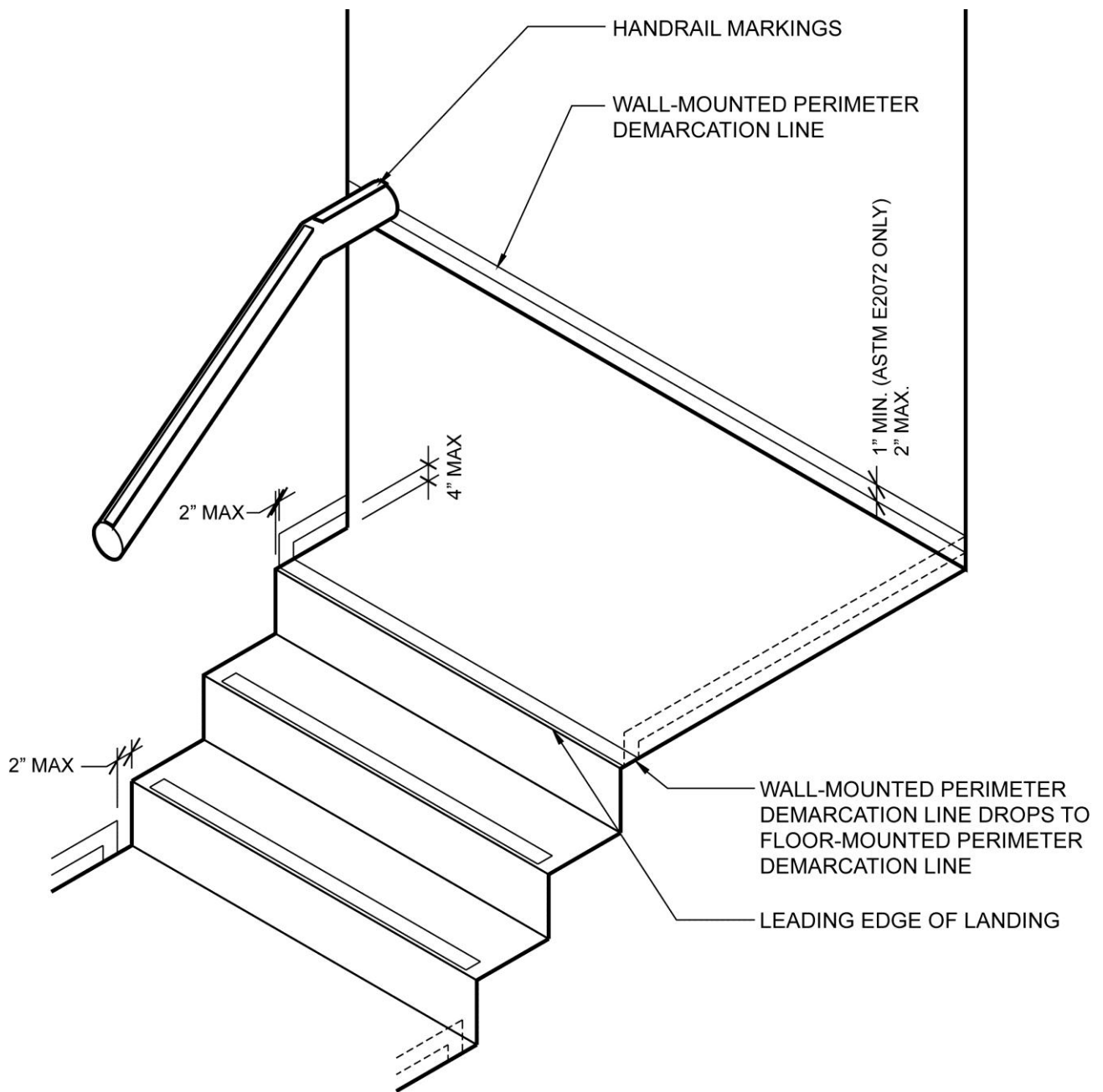
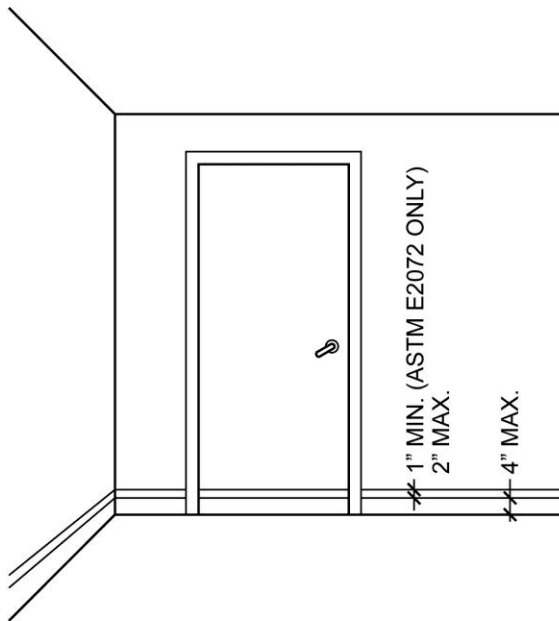
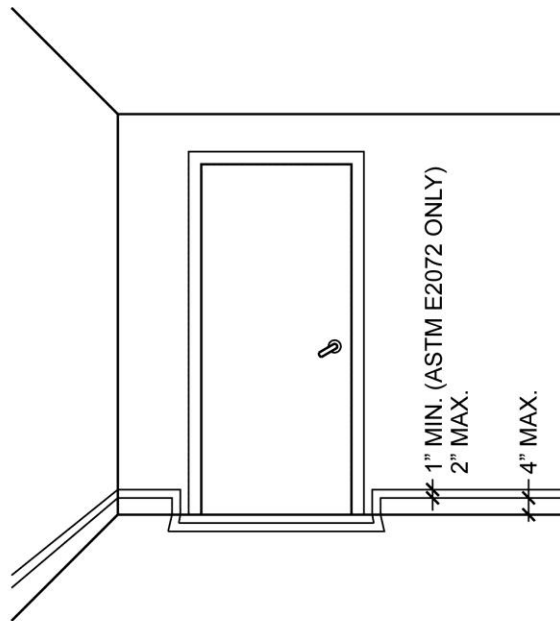


FIGURE S101.1(8)
WALL-MOUNTING OPTION FOR PHOTOLUMINESCENT PERIMETER DEMARCATION LINES



OPTION A: ACROSS FACE OF DOOR



OPTION B: TRANSITION TO FLOOR

FIGURE S101.1(9)
WALL-MOUNTING OPTION FOR PHOTOLUMINESCENT PERIMETER DEMARCATION LINES
THAT ARE NOT PROVIDED WITH DOOR FRAME MARKING

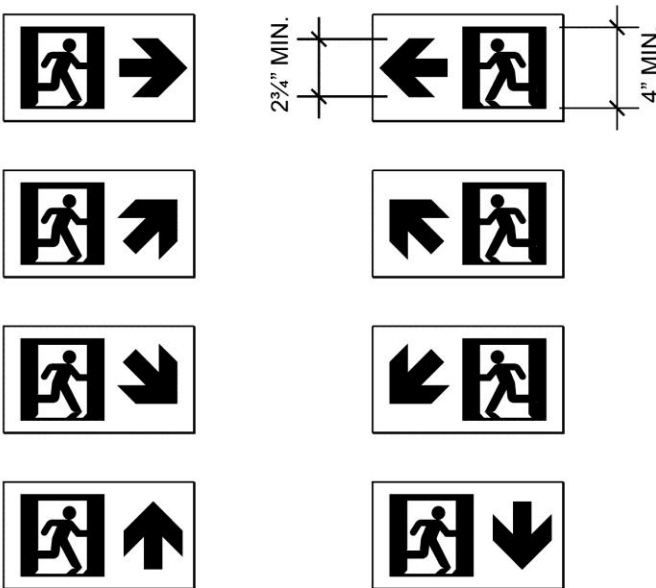


FIGURE S101.1(10)
DIRECTIONAL SIGNAGE

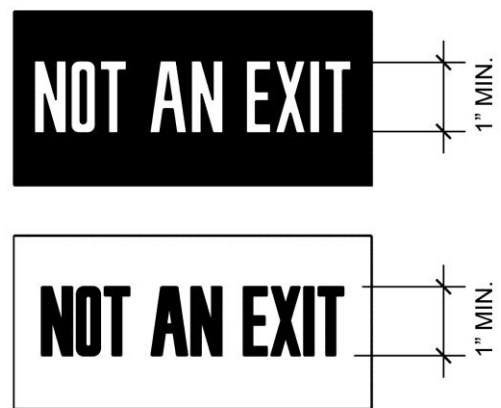


FIGURE S101.1(11)
NOT-AN-EXIT SIGNAGE

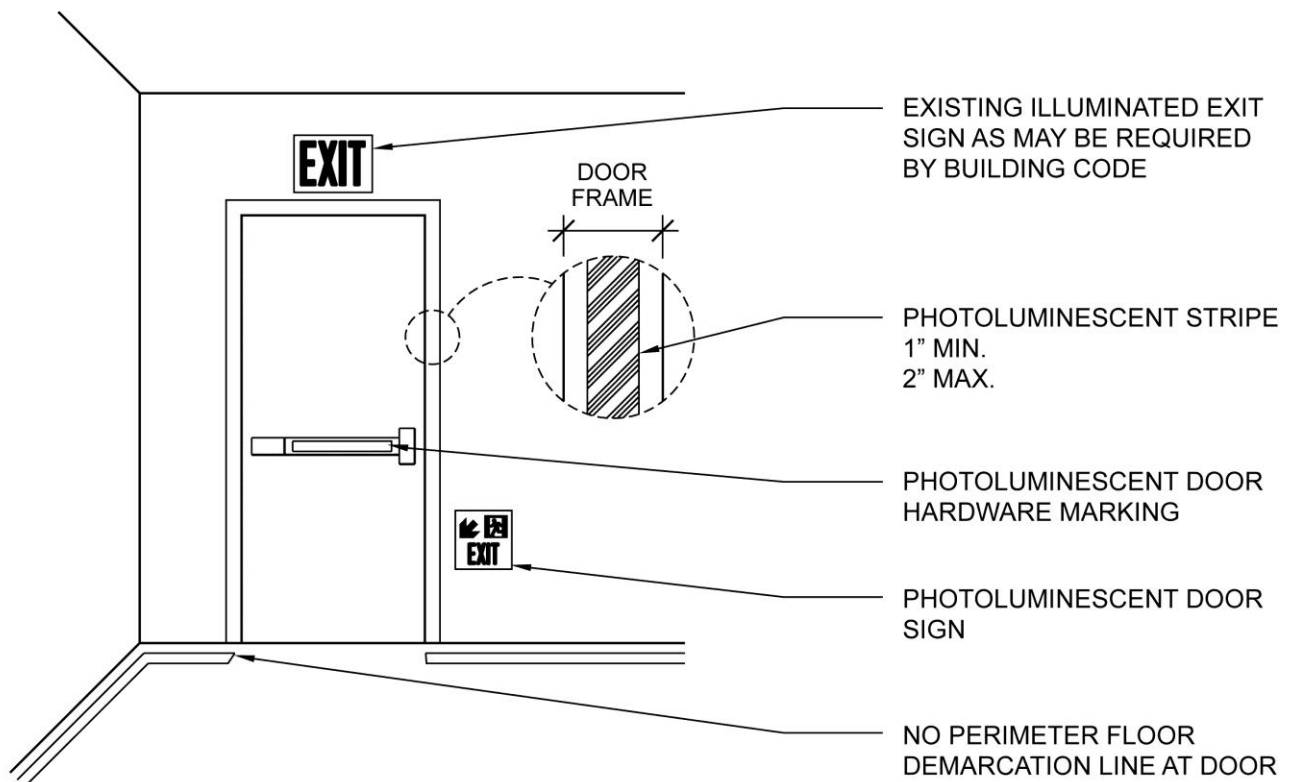


FIGURE S101.1(12)
PHOTOLUMINESCENT MARKING OF INTERMEDIATE EXIT DOOR WITH PUSH BAR

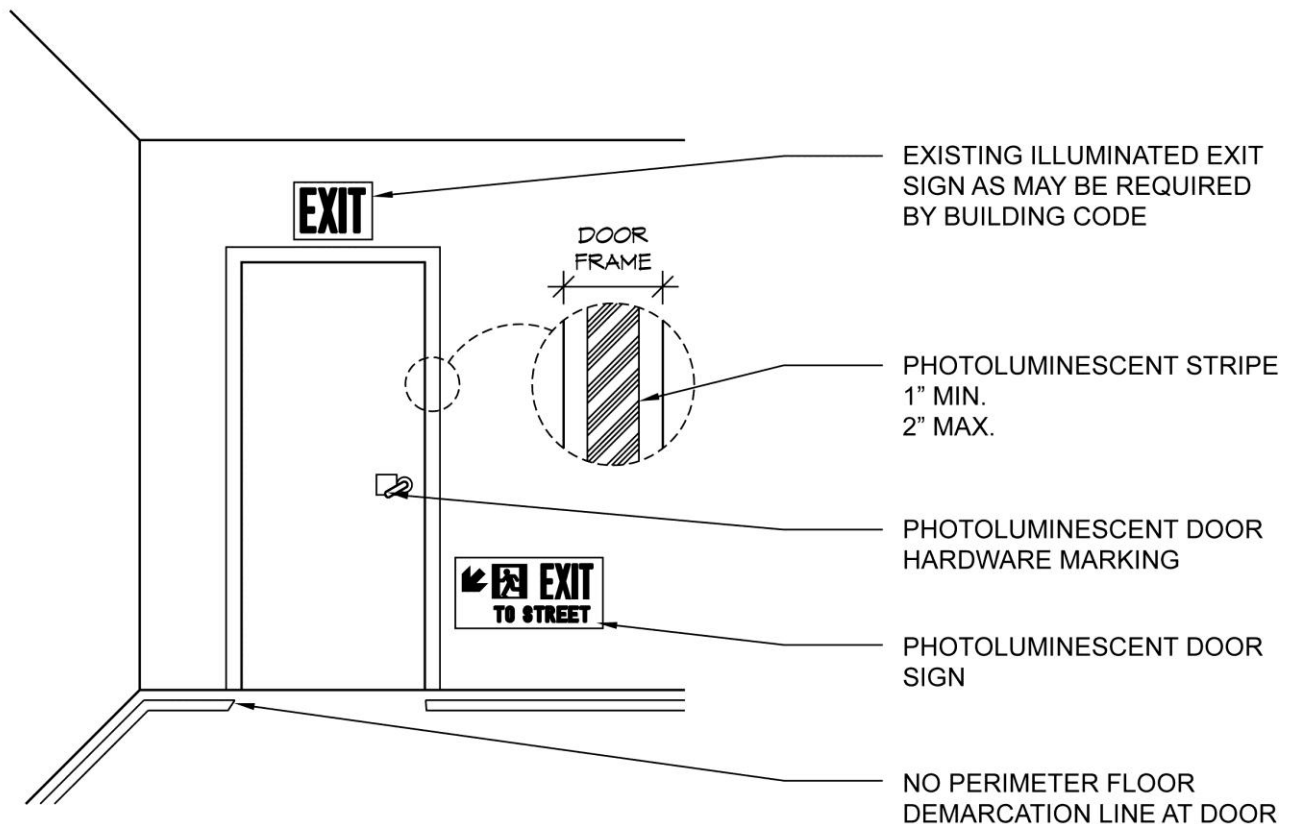


FIGURE S101.1(13)
PHOTOLUMINESCENT MARKING OF FINAL EXIT DOOR WITH DOOR HANDLE

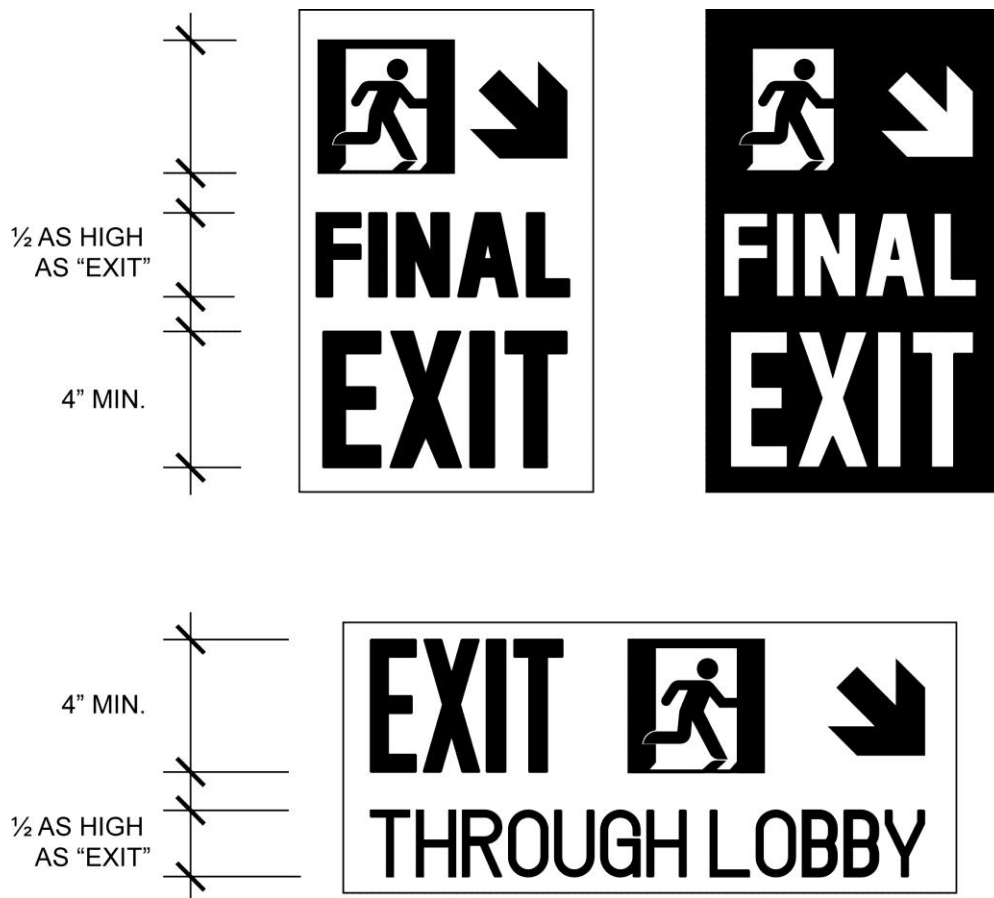


FIGURE S101.1(14)
PHOTOLUMINESCENT FINAL EXIT DOOR SIGNS

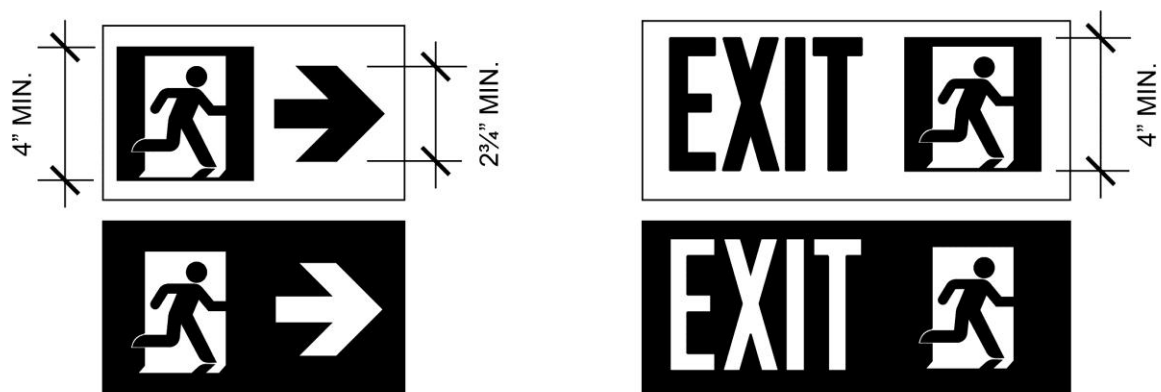


FIGURE S101.1(15)
POSITIVE AND NEGATIVE OPTIONS
FOR PHOTOLUMINESCENT
DIRECTIONAL SIGNS

FIGURE S101.1(16)
POSITIVE AND NEGATIVE OPTIONS
FOR PHOTOLUMINESCENT
DOOR-MOUNTED DOOR SIGNS

Alternate

APPENDIX S

deletions that may have been made to this standard in accordance with Section 28-103.19 of the Administrative Code.

Subpart 46 (Appendix S of the New York City Building Code)

§1. The New York city building code is amended by adding a new appendix S, to read as follows:

APPENDIX S
SUPPLEMENTARY FIGURES FOR LUMINOUS EGRESS PATH MARKINGS

SECTION BC S101
GENERAL

S101.1 Scope. The figures of this appendix shall supplement the provisions of luminous egress path markings in Section 1024 and are intended for illustrative purposes. Where there is a conflict between the figures and the provisions in Section 1024, the provisions in Section 1024 shall govern.

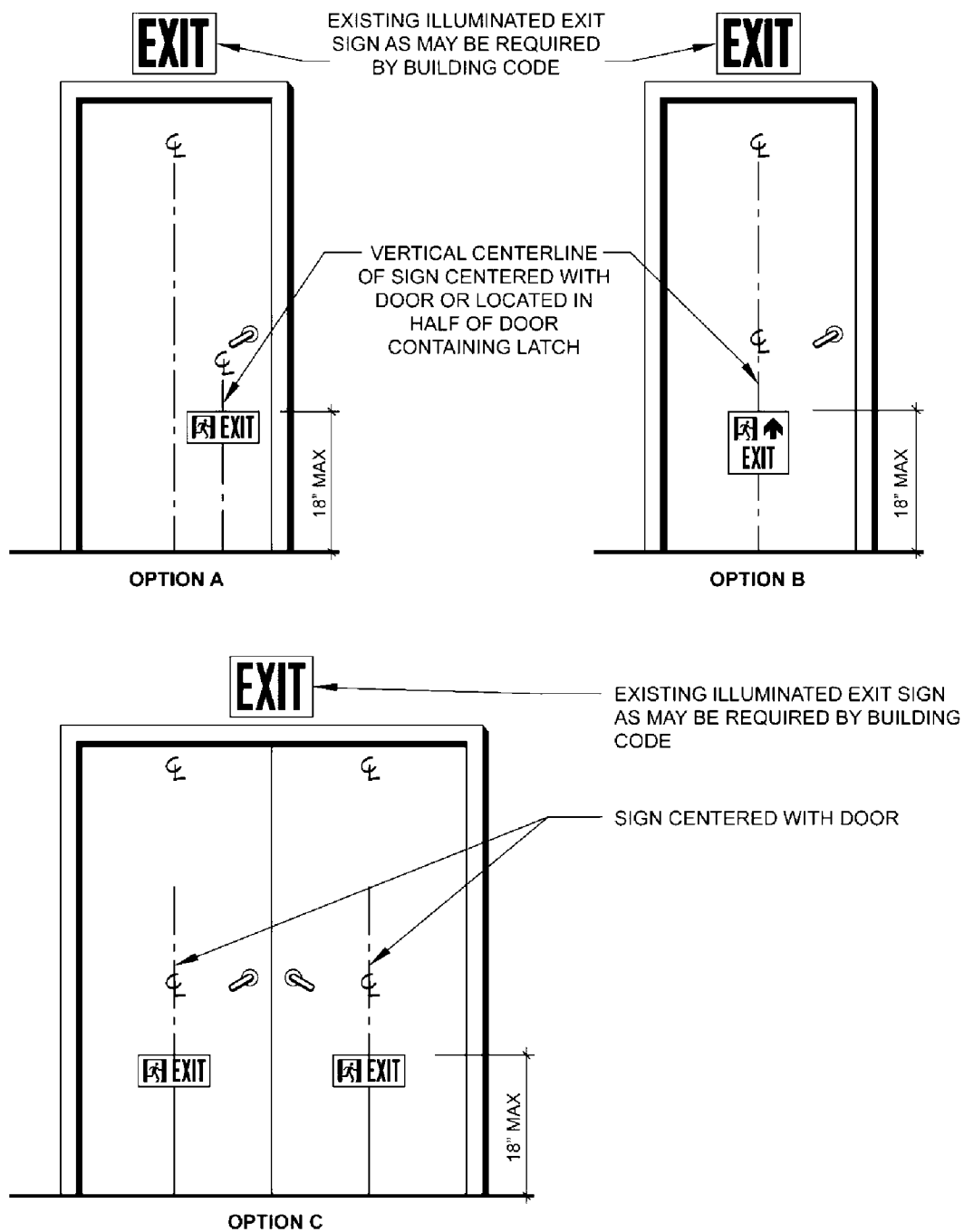


FIGURE S101.1(1)
DOOR-MOUNTING OPTIONS FOR PHOTOLUMINESCENT DOOR SIGNS

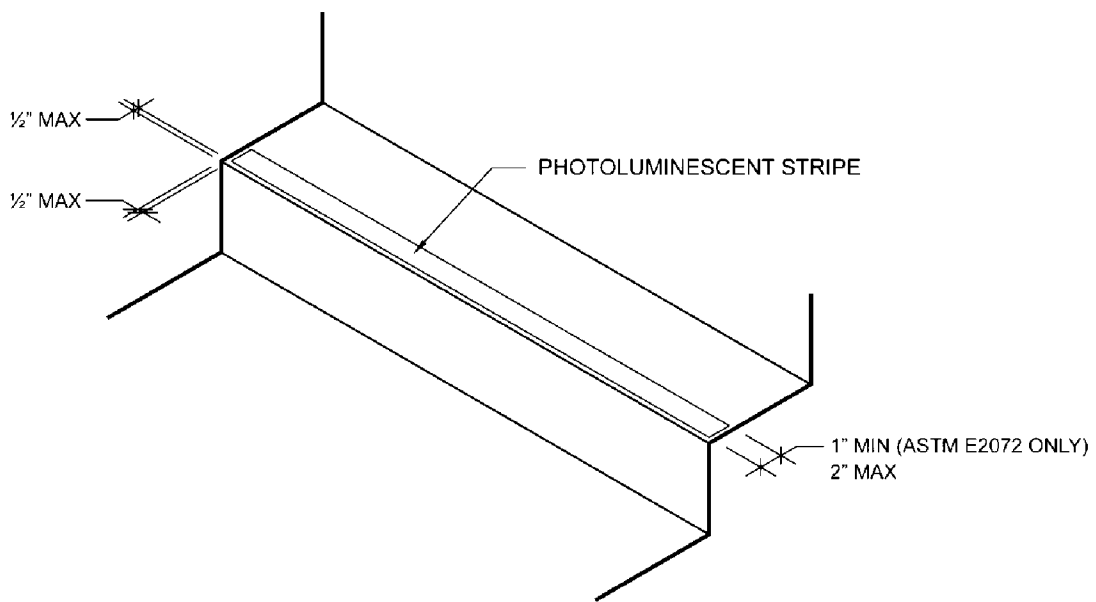


FIGURE S101.1(2)
PHOTOLUMINESCENT MARKING AT HORIZONTAL LEADING EDGE OF STEP

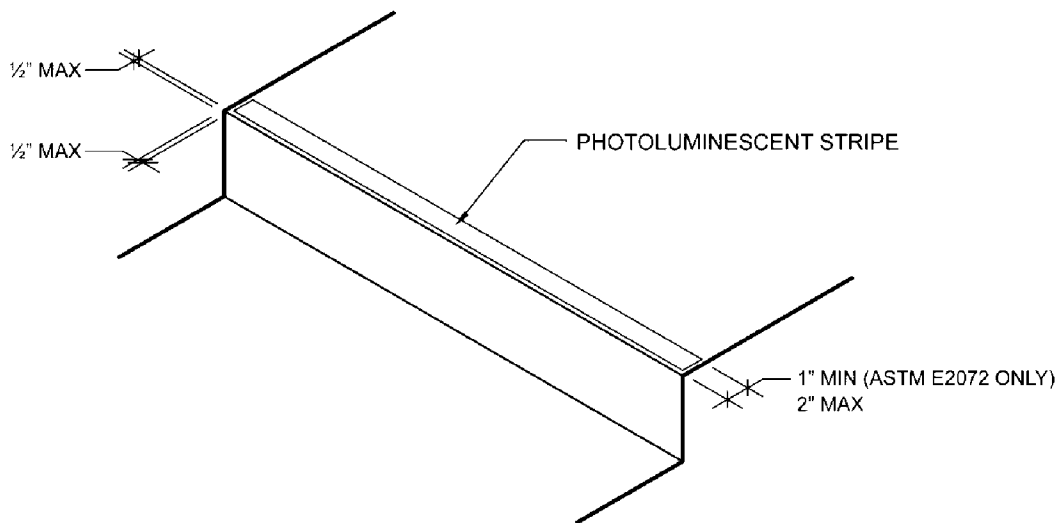
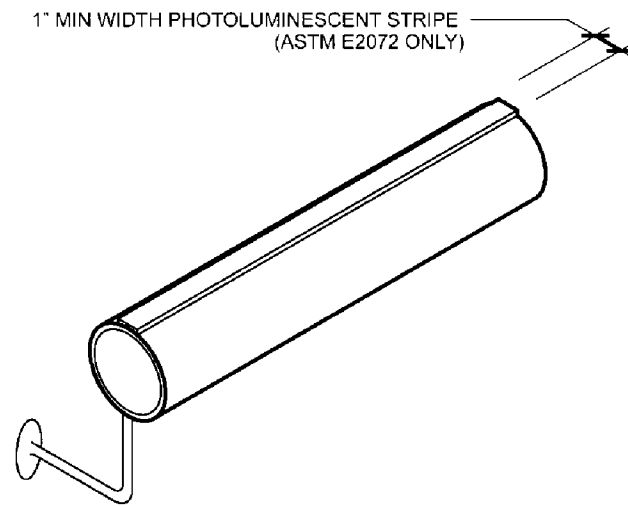
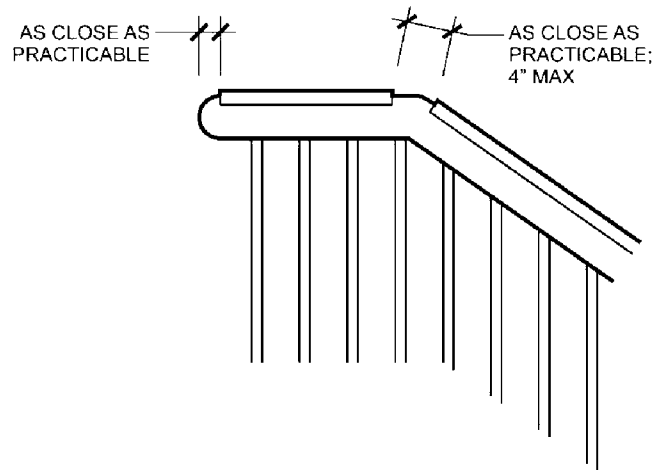


FIGURE S101.1(3)
PHOTOLUMINESCENT MARKING AT HORIZONTAL LEADING EDGE OF LANDING



CUT-AWAY ISOMETRIC OF HANDRAIL



ELEVATION OF HANDRAIL

**FIGURE S101.1(4)
PHOTOLUMINESCENT MARKINGS ON HANDRAILS**

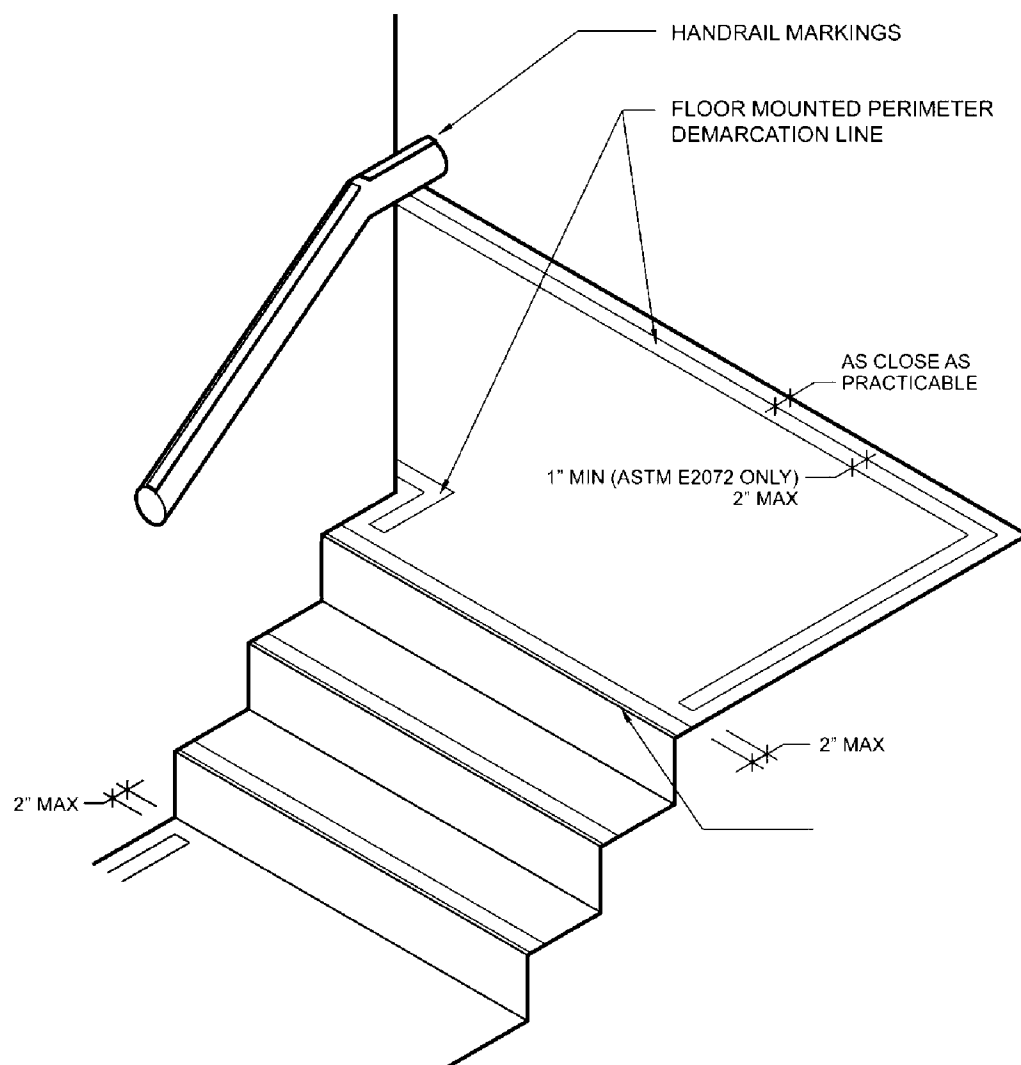
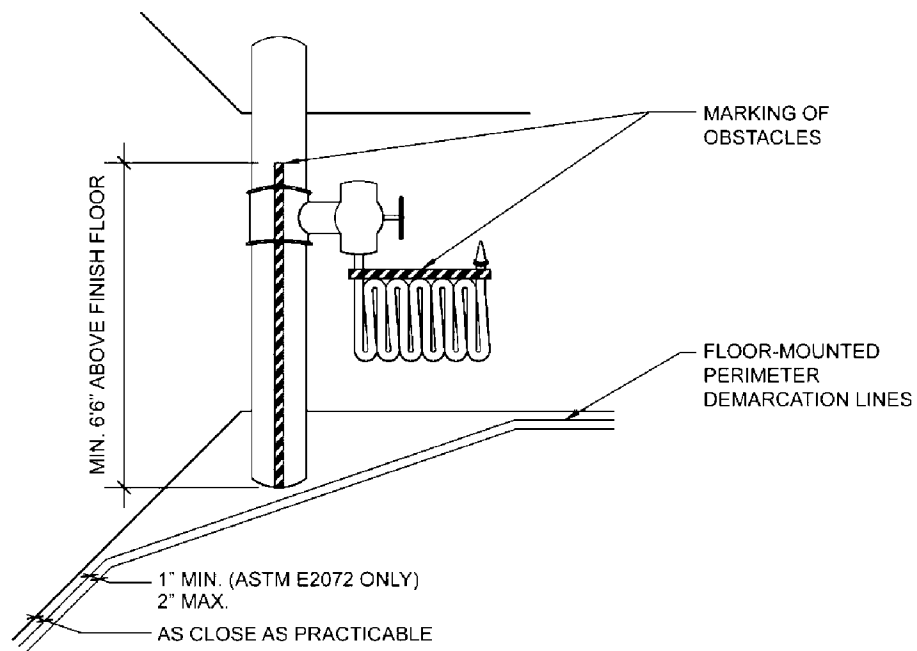
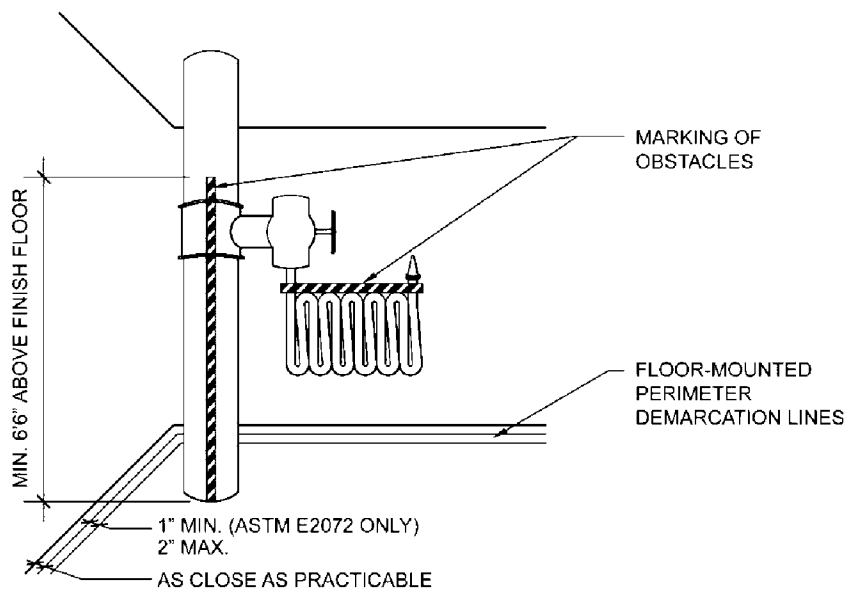


FIGURE S101.1(5)
FLOOR-MOUNTING OPTION FOR PHOTOLUMINESCENT PERIMETER DEMARCATION LINES



OPTION A



OPTION B

FIGURE S101.1(6)
OBSTACLE MOUNTING OPTIONS PHOTOLUMINESCENT PERIMETER DEMARCATION LINES

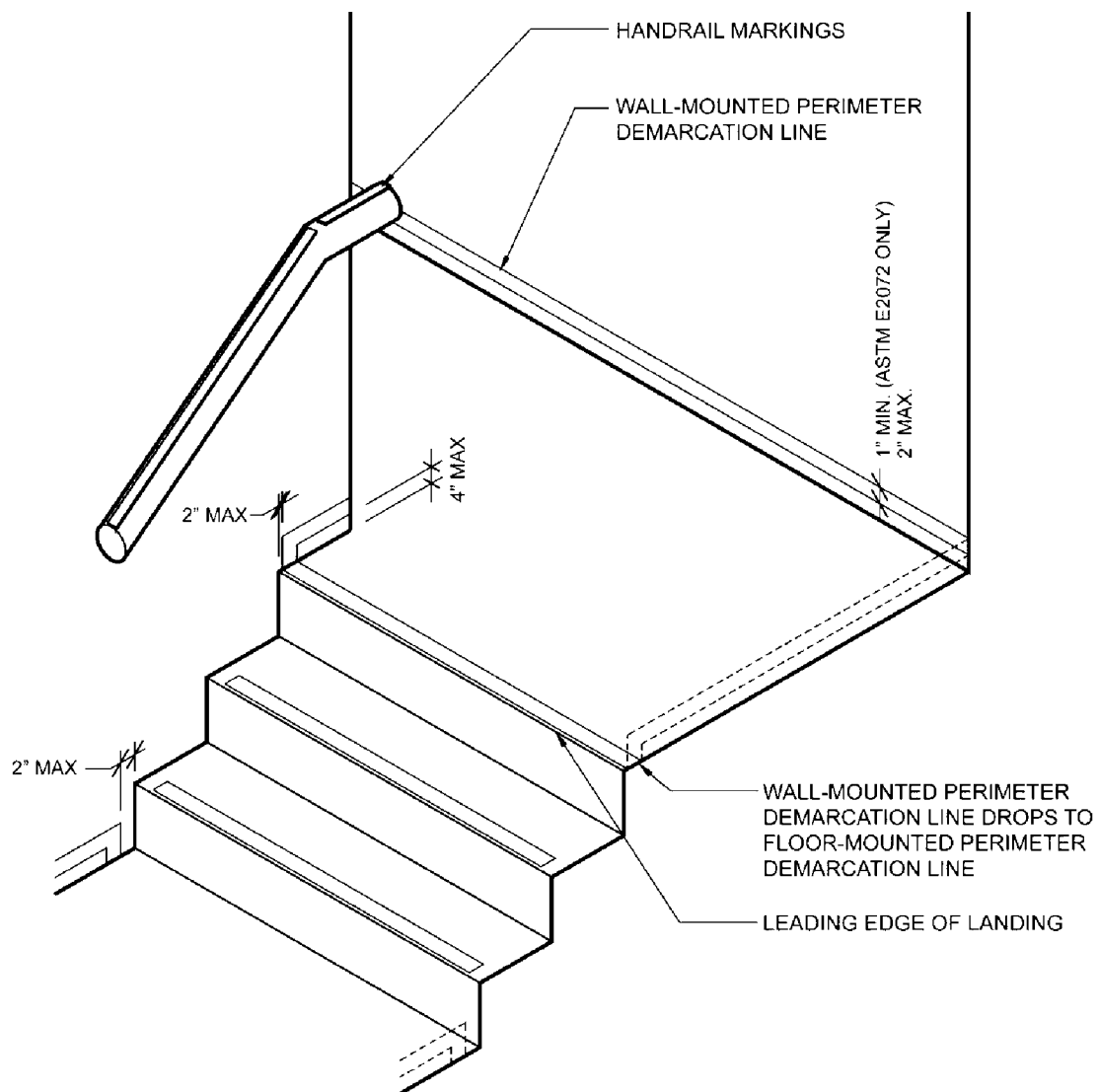
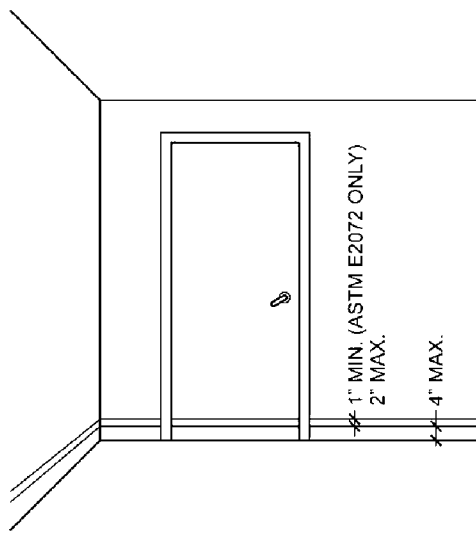
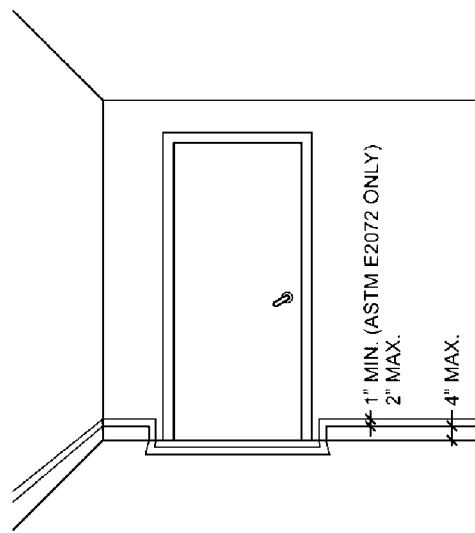


FIGURE S101.1(7)
WALL-MOUNTING OPTION FOR PHOTOLUMINESCENT PERIMETER DEMARCATION LINES



OPTION A: ACROSS FACE OF DOOR



OPTION B: TRANSITION TO FLOOR

FIGURE S101.1(8)
WALL-MOUNTING OPTION FOR PHOTOLUMINESCENT PERIMETER DEMARCATION LINES
THAT ARE NOT PROVIDED WITH DOOR FRAME MARKING

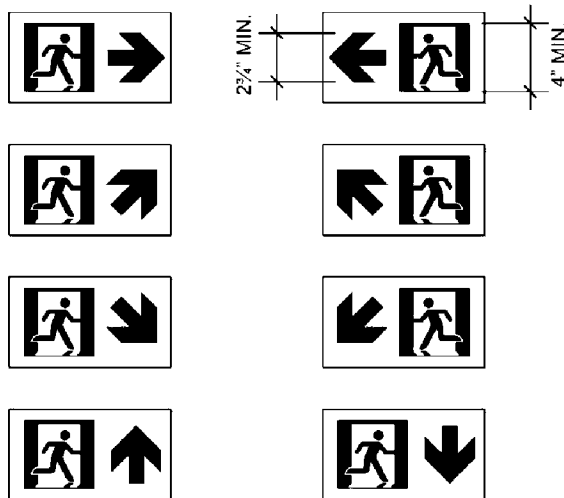


FIGURE S101.1(9)
DIRECTIONAL SIGNAGE

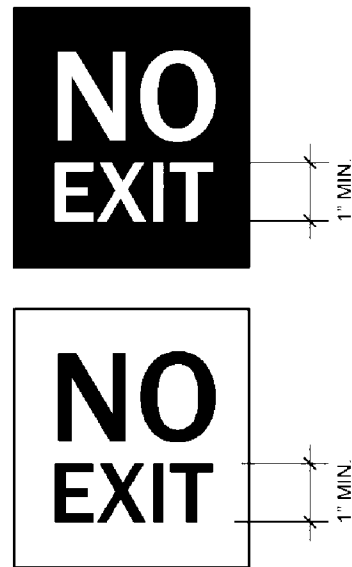


FIGURE S101.1(10)
NO-EXIT SIGNAGE

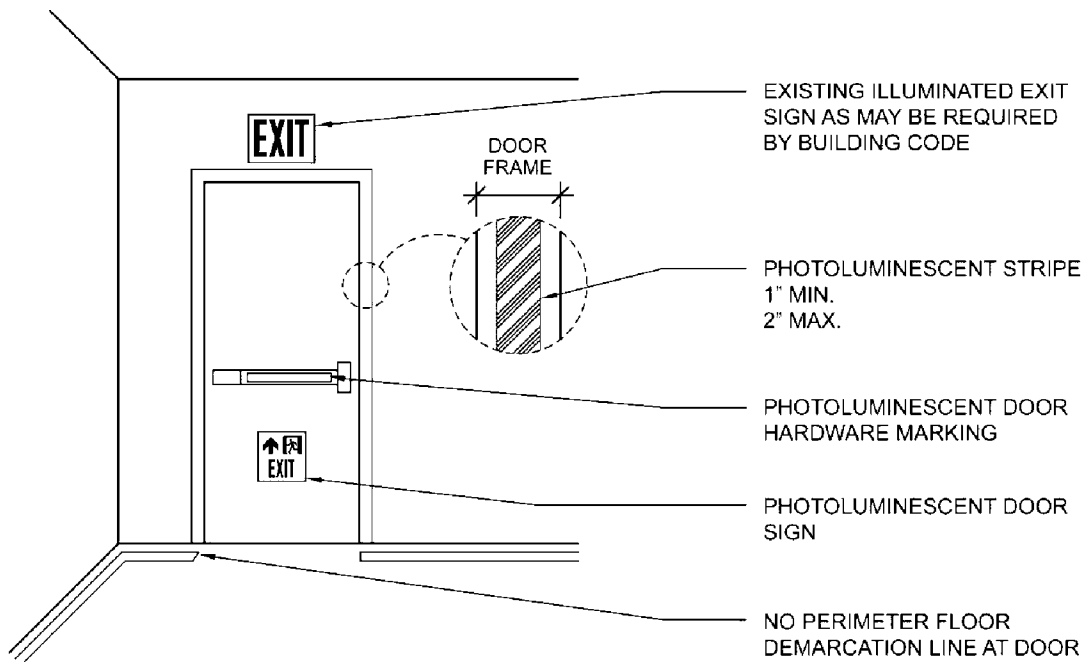


FIGURE S101.1(11)
PHOTOLUMINESCENT MARKING OF INTERMEDIATE EXIT DOOR WITH PUSH BAR

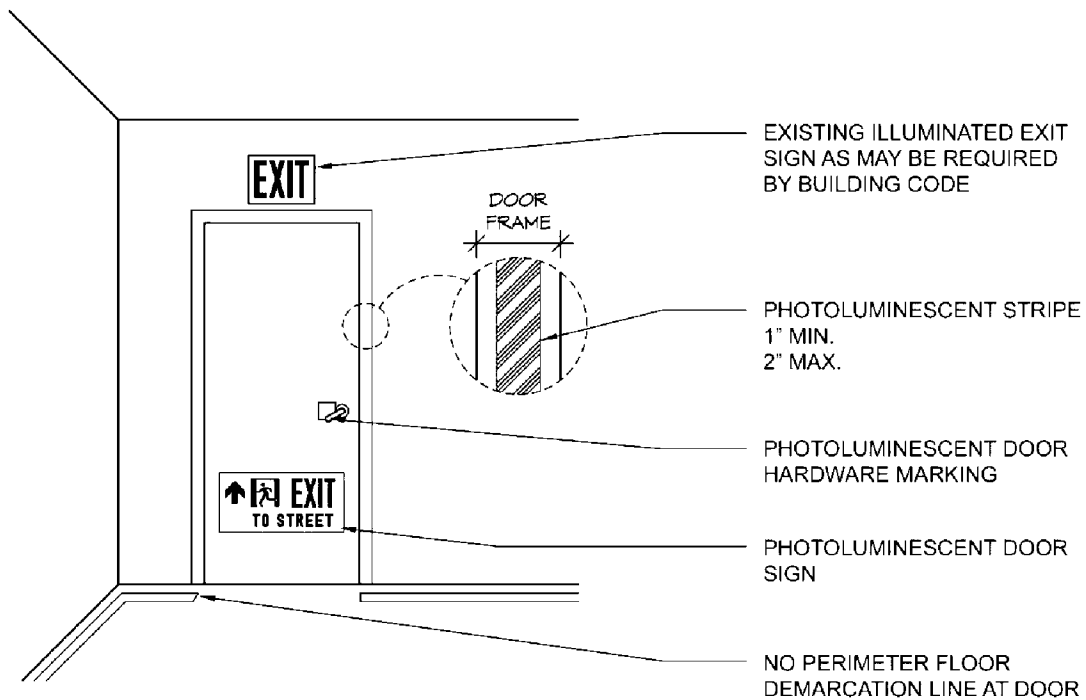


FIGURE S101.1(12)
PHOTOLUMINESCENT MARKING OF FINAL EXIT DOOR WITH DOOR HANDLE

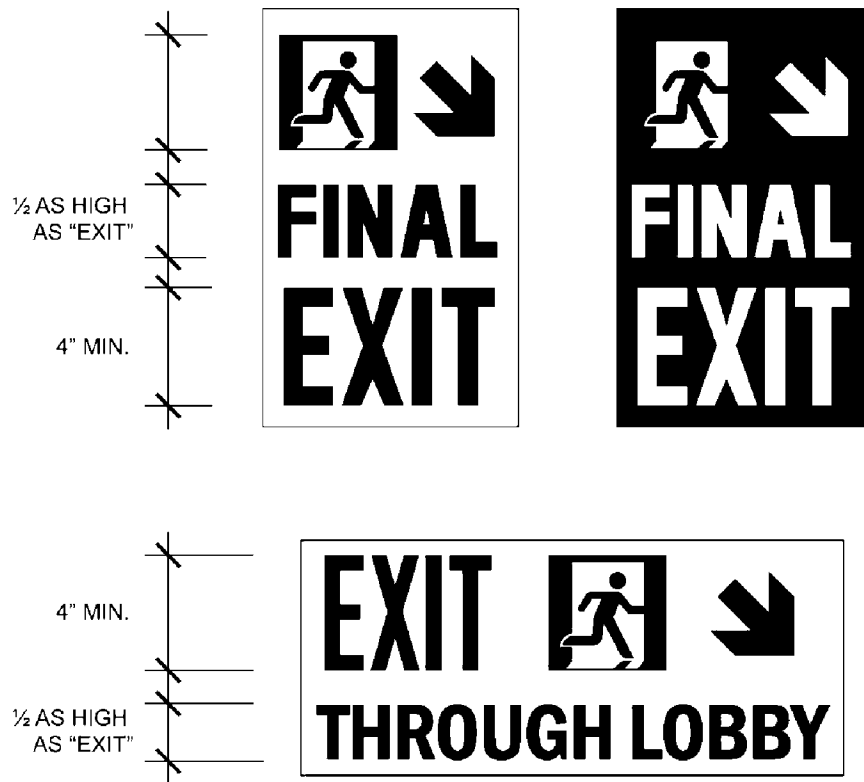


FIGURE S101.1(13)
PHOTOLUMINESCENT FINAL EXIT DOOR SIGNS

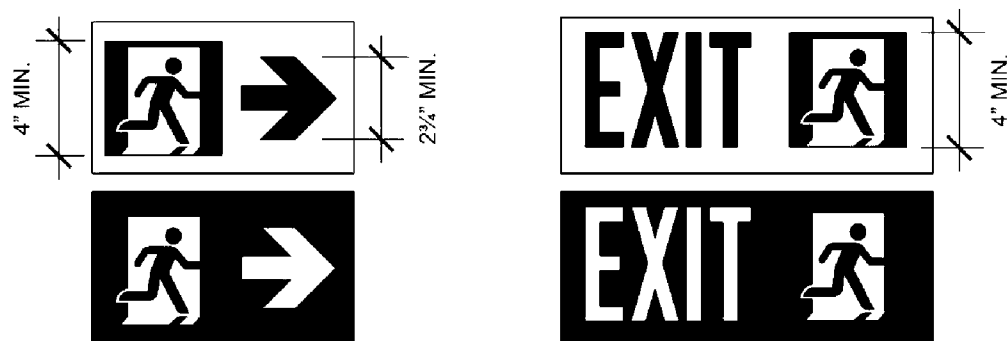


FIGURE S101.1(14)
POSITIVE AND NEGATIVE OPTIONS
FOR PHOTOLUMINESCENT
DIRECTIONAL SIGNS

FIGURE S101.1(15)
POSITIVE AND NEGATIVE OPTIONS
FOR PHOTOLUMINESCENT
DOOR-MOUNTED DOOR SIGNS

Existing NYC Building Code

ARTICLE 6 EXIT LIGHTING

§[C26-605.1] 27-381 Requirements. -

Corridors and exits shall be provided with artificial lighting facilities, except as otherwise permitted by the provisions of subchapter twelve of this chapter, in accordance with the following:

(a) Illumination of at least two foot candles measured at the floor level shall be maintained continuously, during occupancy, in exits and their access facilities for their full length, at changes in direction in and intersections of corridors, balconies, exit passageways, stairs, ramps, escalators, bridges, tunnels, landings, and platforms, and as provided in subchapter eight of this chapter for places of assembly, except that this requirement shall not apply to dwelling units.

(b) In buildings classified in occupancy groups B-1 and B-2, exit lighting need only be maintained when a section of floor is occupied.

(c) Illumination shall be so arranged that the failure of any one light shall not leave any area in darkness.

(d) Phosphorescent materials shall not be used as a method of providing illumination, nor shall battery operated electric lights or portable lamps or lanterns be used as primary sources of lighting.

**(e) (1) Buildings and existing buildings containing an F-4 place of assembly with an occupant load of three hundred or more persons shall install emergency lighting in each vertical exit serving the floor on which the place of assembly is located so as to provide a continuously lighted passage to the exterior of the building. Such lighting shall be connected to an emergency power source or to storage battery equipment meeting the requirements of the commissioner.*

(2) Existing buildings required to comply with this subdivision shall install the emergency lighting on or before April first, nineteen hundred eighty-seven.

**Local Law 59-1996.*

§[C26-605.2] 27-382 Power source. -

**(a) Where a total of more than four lights is required, exit lighting shall be connected to an emergency power source or to storage battery equipment meeting the requirements of the commissioner, provided, however, that in existing buildings, the exit lighting may be on circuits that are separate from the general lighting and power circuits, taken off ahead of the main switch.*

(b) Existing high rise buildings classified in occupancy group C, D or H and existing buildings classified in occupancy group E, G or J-1 (except for "residential hotels," as such term is defined by the commissioner pursuant to rules and regulations) shall comply with the requirements of this section on or before April first, nineteen hundred eighty-seven.

**Local Law 59-1996.*

***ARTICLE 7 EXIT SIGNS AND OTHER MARKINGS

***§[C26-606.1] 27-383 Requirements.- (a) Exit signs.-

Except in occupancy groups J-2 and J-3, the location of every exit on every floor and every opening from a room classified in occupancy group J-1 and containing cubicles shall be clearly indicated by exit signs. Such signs shall be placed at an angle with the exit opening if such placement is required for the signs to serve their purpose. In long corridors, in open floor areas, and in all other situations where the location of the exit may not be readily visible or understood, directional signs shall be provided to serve as guides from all portions of the corridor or floor.

(b) Exit path markings in high rise office buildings and in occupancy group E high rise buildings.-

On and after July 1, 2006 all high rise office buildings and all high rise buildings classified in occupancy group E shall have exit path markings conforming to this subdivision. This provision shall be retroactive and shall apply to buildings constructed on and after such date and to buildings in existence on such date. All exit path markings required herein shall be of an approved photoluminescent material. The markings shall be washable, non-toxic, non radioactive, and if subjected to fire must be self extinguishing when the flame is removed.

(1) All doors opening to corridors, to an exit, or to an exit passageway, shall be marked with the word "exit".

(2) Within exit stairs, horizontal extensions in exit stairs, horizontal exits, supplemental vertical exits and exit passageways, except within street level lobbies, there shall be directional markings.

(3) Required markings for exit paths shall comply with the technical standards for installation and placement to be set forth in a reference standard. Such reference standard shall be designated RS 6-1 and shall be adopted on or before January 1, 2006.

****Local Law 26-2004.*

**§27-383.1 Additional requirements for high rise office buildings and occupancy group E high rise buildings.-

In high rise office buildings and in occupancy group E high rise buildings:

(a) Illuminated exit signs complying with section 27-386 of this subchapter shall be placed in stairwells with horizontal extensions to indicate the transition from vertical to horizontal direction and at turns along the horizontal path.

(b) A supplementary sign complying with sections 27-394 and 27-395 of this subchapter, except that the lettering and numerals shall be at least one inch high, indicating the location of a recessed re-entry door, shall be securely attached on the wall of the landing that faces the evacuee on the stairs.

(c) In stairs where there is no entry or exiting from such stair for more than four floors, a sign complying with sections 27-394 and 27-395, except that the lettering and numerals shall be at least one inch high, shall be securely attached at the beginning of the descent into such portion of the stair on the wall of the landing that faces the evacuee on

maintaining 50 percent of the egress to increase life safety in the current code. This section is more restrictive but enhances life safety.

Table 1005.1 of this section sets forth the required clear width of egress components by establishing the required number of inches per occupant with regard to each occupancy. Such numbers are separated into two categories: in stairways and in other egress components. They must then be multiplied by the number of occupants. The resulting figures must be determined in consideration of other requirements in other sections of the code such as Section 1009.1. In most cases, Section 1009.1 requires 44 inches of width in stairways but provides exception for small buildings where the cumulative occupant load in a stairway is 50 or less. In comparison, the equivalent Table 6-1 and other exceptions in the current code permit a relatively larger occupant load to exit through a 36-inch wide stairway in a number of occupancies. Stairways serving an occupant load of 500 people in an office building require a total width of 150 inches, whereas in the current code 176 inches of total width is required.

This section prohibits door swings from reducing the clear width of the path of egress travel to less than one-half, and limits the door projection to seven inches maximum. There is no explicit equivalent provision in the current code addressing door encroachment except that the current code limits the amount of projections in a corridor, which does not necessarily parallel the provisions in this section.

27-359, 27-369(a), 27-375, Table 6-1

Section BC-1006. Means of Egress Illumination. This section addresses the issue of means of egress illumination including illumination under normal operations and illumination under emergency conditions. This section sets forth the requirements for illumination of egress components that encompass all buildings but provides a number of exceptions for certain occupancies and facilities. The current code contains equivalent requirements but only some of the exceptions.

This section establishes a minimum illumination level of 2 foot-candles at the floor level in means of egress and permits 0.5 foot-candle in aisles in assembly occupancies during performances and 0.2 foot-candle in other portions of the space. The current code requires the same illumination level in aisles in assembly occupancies but it does not address the lower illumination level of other portions of the space, a practical matter during performances. For high-rise buildings that are required to be provided with photoluminescent markings, the illumination sources must be capable of charging the photoluminescent markings. This is typically provided by using fluorescent lighting. The current code requires photoluminescent materials to be charged by a minimum of 2 foot-candle of illumination but does not specify the type of illumination source. This section clarifies the requirement of the type of light source.

This section requires means of egress illumination be provided via an electrical supply during normal operations and requires a number of areas be provided with illumination powered by an emergency power supply in the event of power failure. There is an