

CTC Open Stairway 2012 Code Change Proposal In Progress: 10-05-2011

The following is the Study Group report that was considered by the CTC at its October 13-14, 2011 meeting. **Notes from the meeting are indicated in red.**

SECTION 202 DEFINITIONS

EXIT ACCESS RAMP. An ~~interior~~ *ramp* that is not a required ~~interior~~ *exit ramp*.

EXIT ACCESS STAIRWAY. An ~~interior~~ *stairway* that is not a required ~~interior~~ *exit stairway*.

SECTION 403 HIGH-RISE BUILDINGS

403.5.1 Remoteness of interior exit stairways. Required *interior exit stairways* shall be separated by a distance not less than 30 feet (9144 mm) or not less than one-fourth of the length of the maximum overall diagonal dimension of the building or area to be served, whichever is less. The distance shall be measured in a straight line between the nearest points of the enclosure surrounding the interior exit stairways. In buildings with three or more *interior exit stairways*, no fewer than two of the *interior exit stairways* shall comply with this section. Interlocking or *scissor stairs* shall be counted as one *interior exit stairway*.

SECTION 707 FIRE BARRIERS

707.3.3 Enclosures for exit access stairways. The *fireresistance rating* of the fire barrier separating building areas from an exit access stairway or ramp shall comply with Section 4009.3.4.2 713.4.

707.5.1 Supporting construction. The supporting construction for a *fire barrier* shall be protected to afford the required *fire-resistance rating* of the *fire barrier* supported. Hollow vertical spaces within a *fire barrier* shall be fireblocked in accordance with Section 718.2 at every floor level.

Exceptions:

1. The maximum required *fire-resistance rating* for assemblies supporting *fire barriers* separating tank storage as provided for in Section 415.8.2.1 shall be 2 hours, but not less than required by Table 601 for the building construction type.
2. Shaft enclosures shall be permitted to terminate at a top enclosure complying with Section 713.12.
3. Supporting construction for 1-hour *fire barriers* required by Table 509 in buildings of Type IIB, IIIB and VB construction is not required to be fire-resistance rated unless required by other sections of this code.
4. Interior exit stairway and ramp enclosures required by Section 1022.2 and exit access stairway and ramp enclosures required by ~~Section 4009.3~~ Sections

1018.3 and 1018.4 shall be permitted to terminate at a top enclosure complying with Section 713.12.

707.7.1 Prohibited penetrations. Penetrations into enclosures for ~~exit access stairways, exit access ramps, interior exit stairways, interior exit and ramps~~ or an exit passageway shall be allowed only ~~when~~ where permitted by Section ~~1009.3.1.5, 1022.5 or 1023.6, respectively.~~

SECTION 711 HORIZONTAL ASSEMBLIES

711.4 Continuity. Assemblies shall be continuous without openings, penetrations or joints except as permitted by this section and Sections 712.1, 714.4, 715, ~~1009.3~~ 1018 and 1022.1. Skylights and other penetrations through a fire-resistance-rated roof deck or slab are permitted to be unprotected, provided that the structural integrity of the fire-resistance-rated roof assembly is maintained. Unprotected skylights shall not be permitted in roof assemblies required to be fire-resistance rated in accordance with Section 705.8.6. The supporting construction shall be protected to afford the required *fire-resistance rating* of the *horizontal assembly* supported.

Exception: In buildings of Type IIB, IIIB or VB construction, the construction supporting the *horizontal assembly* is not required to be fire-resistance-rated at the following:

1. Horizontal assemblies at the separations of incidental uses as specified by Table 509, provided the required *fire-resistance rating* does not exceed 1 hour.
2. Horizontal assemblies at the separations of *dwelling units* and *sleeping units* as required by Section 420.3.
3. Horizontal assemblies at *smoke barriers* constructed in accordance with Section 709.

SECTION 712 VERTICAL OPENINGS

712.1 General. The provisions of this section shall apply to the vertical opening applications listed in Sections 712.1.1 through 712.1.18.

712.1.1 Shaft enclosures. Vertical openings contained entirely within a shaft enclosure complying with Section 713 shall be permitted.

712.1.12 ~~Unenclosed~~ Exit access stairways and ramps. Vertical floor openings ~~created by unenclosed~~ containing exit access stairways or ramps in accordance with ~~Sections 1009.2 and 1009.3~~ Section 1018 shall be permitted.

SECTION 713 SHAFT ENCLOSURES

713.1 General. The provisions of this section shall apply to shafts required to protect openings and penetrations through floor/ceiling and roof/ceiling assemblies. ~~Exit access stairways and exit access ramps shall be protected in accordance with the applicable provisions of Section 1009.~~ Interior exit stairways and interior exit ramps shall be protected in accordance with the requirements of Section 1022.

SECTION 1001 ADMINISTRATION

1001.2 Minimum requirements. It shall be unlawful to alter a building or structure in a manner that will reduce the number of exits or the capacity of the means of egress to less than required by this code. Means of egress shall be designed to be continuous and unobstructed.

SECTION 1007 ACCESSIBLE MEANS OF EGRESS

1007.2 Continuity and components. Each required *accessible means of egress* shall be continuous to a *public way* and shall consist of one or more of the following components:

1. *Accessible routes* complying with Section 1104.
2. *Interior exit stairways* complying with Sections 1007.3 and 1022.
3. ~~Interior exit access stairways~~ complying with Sections 1007.3 and ~~4009.3~~ 1018.2 or 1018.3.
4. *Exterior exit stairways* complying with Sections 1007.3 and 1026 and serving levels other than the *level of exit discharge*.
5. Elevators complying with Section 1007.4.
6. Platform lifts complying with Section 1007.5.
7. *Horizontal exits* complying with Section 1025.
8. *Ramps* complying with Section 1010.
9. *Areas of refuge* complying with Section 1007.6.
10. Exterior area for assisted rescue complying with Section 1007.7.

1007.6.2 Separation. Each *area of refuge* shall be separated from the remainder of the story by a *smoke barrier* complying with Section 709 or a *horizontal exit* complying with Section 1025. Each *area of refuge* shall be designed to minimize the intrusion of smoke.

Exception: *Areas of refuge* located within an enclosure for ~~exit access stairways~~ or *interior exit stairways*.

SECTION 1009 STAIRWAYS

1009.1 General. Stairways serving occupied portions of a building shall comply with the requirements of this section.

~~**1009.2 Interior exit stairways.** Interior exit stairways shall lead directly to the exterior of the building or shall be extended to the exterior of the building with an exit passageway conforming to the requirements of Section 1023, except as permitted in Section 1027.1.~~

~~**1009.2.1 Where required.** Interior exit stairways shall be included, as necessary, to meet one or more means of egress design requirements, such as required number of exits or exit access travel distance.~~

~~**1009.2.2 Enclosure.** All interior exit stairways shall be enclosed in accordance with the provisions of Section 1022.~~

1009.3 Exit access stairways.—Relocated to 1018.3

1009.3.1 Construction. Where required, enclosures for exit access stairways shall be constructed in accordance with this section. Exit access stairway enclosures shall be constructed as fire barriers in accordance with Section 707 or horizontal assemblies in accordance with Section 711, or both.

1009.3.1.1 Materials. Exit access stairway enclosures shall be of materials permitted by the building type of construction.

1009.3.1.2 Fire-resistance rating. Exit access stairway enclosures shall have a fire-resistance rating of not less than 2 hours where connecting four stories or more, and not less than 1 hour where connecting less than four stories. The number of stories connected by the exit access stairway enclosures shall include any basements, but not any mezzanines. Exit access stairway enclosures shall have a fire-resistance rating not less than the floor assembly penetrated, but need not exceed 2 hours.

1009.3.1.3 Continuity. Exit access stairway enclosures shall have continuity in accordance with Section 707.5 for fire barriers or Section 711.4 for horizontal assemblies as applicable.

1009.3.1.4 Openings. Openings in an exit access stairway enclosure shall be protected in accordance with Section 716 as required for fire barriers. Doors shall be self- or automatic-closing by smoke detection in accordance with Section 716.5.9.3.

1009.3.1.4.1 Prohibited openings. Openings other than those necessary for the purpose of the exit access stairway enclosure shall not be permitted in exit access stairway enclosures.

1009.3.1.5 Penetrations. Penetrations in an exit access stairway enclosure shall be protected in accordance with Section 714 as required for fire barriers.

1009.3.1.5.1 Prohibited penetrations. Penetrations other than those necessary for the purpose of the exit access stairway enclosure shall not be permitted in exit access stairway enclosures.

1009.3.1.6 Joints. Joints in an exit access stairway enclosure shall comply with Section 715.

1009.3.1.7 Ducts and air transfer openings. Penetrations of an exit access stairway enclosure by ducts and air transfer openings shall comply with Section 717.

1009.3.1.8 Exterior walls. Where exterior walls serve as a part of an exit access stairway enclosure, such walls shall comply with the requirements of Section 705 for exterior walls and the fire-resistance-rated enclosure requirements shall not apply.

Renumber remaining sections.

SECTION 1010 RAMPS

~~1010.2 Enclosure. All interior exit ramps shall be enclosed in accordance with the applicable provisions of Section 1022. Exit access ramps shall be enclosed in accordance with the provisions of Section 1009.3 for enclosure of stairways.~~

Renumber remaining sections

SECTION 1011 EXIT SIGNS

1011.1 Where required. *Exits and exit access doors doorways* shall be marked by an *approved exit* sign readily visible from any direction of egress travel. The path of egress travel to *exits* and within *exits* shall be marked by readily visible *exit* signs to clearly indicate the direction of egress travel in cases where the *exit* or the path of egress travel is not immediately visible to the occupants. Intervening *means of egress* doors within *exits* shall be marked by *exit* signs. *Exit* sign placement shall be such that no point in an *exit access corridor* or *exit passageway* is more than 100 feet (30 480 mm) or the *listed* viewing distance for the sign, whichever is less, from the nearest visible *exit* sign.

(Note: The 2nd sentence already gets you the exit signs at the exit access stairway? Option is to strike “and exit access doors” and rely on the 2nd sentence.)

Exceptions:

1. *Exit* signs are not required in rooms or areas that require only one *exit* or *exit access*.
2. Main exterior *exit* doors or gates that are obviously and clearly identifiable as *exits* need not have *exit* signs where *approved* by the *building official*.
3. *Exit* signs are not required in occupancies in Group U and individual sleeping units or dwelling units in Group R-1, R-2 or R-3.
4. *Exit* signs are not required in dayrooms, sleeping rooms or dormitories in occupancies in Group I-3.
5. In occupancies in Groups A-4 and A-5, *exit* signs are not required on the seating side of vomitories or openings into seating areas where *exit* signs are provided in the concourse that are readily apparent from the vomitories. Egress lighting is provided to identify each vomitory or opening within the seating area in an emergency.

SECTION 1015 EXITS AND EXIT ACCESS DOORWAYS

1015.1 Exits or exit access doorways from spaces. Two exits or exit access doorways from any space ~~or including~~ mezzanines shall be provided where one of the following conditions exists:

1. The *occupant load* of the space exceeds one of the values in Table 1015.1.

Exceptions:

1. In Group R-2 and R-3 occupancies, one *means of egress* is permitted within and from individual dwelling units with a maximum *occupant load* of 20 where the dwelling unit is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
2. Care suites in Group I-2 occupancies complying with Section 407.4.3.
2. The *common path of egress travel* exceeds one of the limitations of Section 1014.3.
3. Where required by Section 1015.3, 1015.4, 1015.5, or 1015.6.

Where a building contains mixed occupancies, each individual occupancy shall comply with the applicable requirements for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1.

1015.2 Exit or exit access doorway arrangement. Required exits shall be located in a manner that makes their availability obvious. Exits shall be unobstructed at all times. Exits, and exit access doorways, and exit access stairways and ramps shall be located in a manner that makes their availability obvious and shall be arranged in accordance with Sections 1015.2.1 and 1015.2.2.

(Note: separate change to remove 1st sentence with “availability obvious”)

1015.2.1 Two exits or exit access doorways. Where two *exits* or *exit access doorways* are required from any portion of the *exit access*, the *exit doors* or *exit access doorways* shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the building or area to be served measured in a straight line between *exit doors* or *exit access doorways*. Interlocking or *scissor stairs* shall be counted as one *exit stairway*.

Exceptions:

1. Where interior exit stairways are interconnected by a 1-hour fire-resistance-rated corridor conforming to the requirements of Section 1018, the required exit separation shall be measured along the shortest direct line of travel within the corridor.
2. Where a building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2, the separation distance of the *exit doors* or *exit access doorways* shall not be less than one-third of the length of the maximum overall diagonal dimension of the area served.

1015.2.1.1 Measurement point. The separation distance required in Section 1015.2.1 shall be measured in accordance with the following:

1. The separation distance to exit or exit access doorways shall be measured to any point **at along** the **width** face of the doorway.
2. The separation distance to exit access stairways shall be measured to the closest riser of the exit access stairway.
3. The separation distance to exit access ramps shall be measured to the closest slope of the exit access ramp.

1015.2.2 Three or more exits or exit access doorways. Where access to three or more *exits* is required, at least two *exit doors* or *exit access doorways* shall be arranged in accordance with the provisions of Section 1015.2.1.

1015.2.3 Remoteness of exit access stairways or ramps. Where two exit access stairways or ramps provide **the** required means of egress to exits at another story, the required separation distance shall be maintained for all portions of such exit access stairways or ramps.

1015.2.3.1 Three or more **exit access stairways or ramps.** Where more than two exit access stairways or ramps provide **the** required means of egress, at least two shall be arranged in accordance with 1015.2.3.

SECTION 1016 EXIT ACCESS TRAVEL DISTANCE

1016.3 Measurement. Exit access travel distance shall be measured from the most remote point within a story along the natural and unobstructed path of horizontal and vertical egress travel to the entrance to an exit.

Exceptions:

4. In open parking garages, exit access travel distance is permitted to be measured to the closest riser of an exit access stairway or the closest slope of an exit access ramp.
- ~~2. In outdoor facilities with open exit access components, exit access travel distance is permitted to be measured to the closest riser of an exit access stairway or the closest slope of an exit access ramp.~~

SECTION 1018 EXIT ACCESS STAIRWAYS AND RAMPS

1018.1 General. Exit access stairways and ramps serving as an exit access component in a means of egress system shall comply with the requirements of this section. The number of stories connected by exit access stairways and ramps shall include **any** basements, but not **any** mezzanines.

1018.2 All occupancies. Exit access stairways and ramps that serve floor levels within

a single story are not required to be enclosed.

1018.3 1009.3 Occupancies other than Group I-2 and I-3. Exit access stairways.

~~Floor openings between stories created by exit access stairways shall be enclosed. In other than Group I-2 and I-3 occupancies, floor openings containing exit access stairways or ramps that do not comply with one of the conditions listed in this section are required to be enclosed with a shaft enclosure constructed in accordance with Section 713.~~

(possibly write the initial paragraph to make 713 protection and option; possibly write as separate sections the same as 712)

Exceptions:

1. ~~In other than Group I-2 and I-3 occupancies, Exit access stairways and ramps that serve, or atmospherically communicate between, only two stories, ~~are not required to be enclosed.~~~~
2. ~~In Group R-1, R-2 or R-3 occupancies, exit access stairways and ramps connecting four stories or less serving and contained within ~~a single residential~~ an individual dwelling unit or sleeping unit in Group R-1, R-2 or R-3 occupancies ~~are not required to be enclosed.~~~~
3. ~~In buildings with only Group B or M occupancies, Exit access stairways and ramps in openings ~~are not required to be enclosed~~ provided that the buildings is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, where the area of the ~~floor~~ vertical opening between stories does not exceed twice the horizontal projected area of the ~~exit access stairway~~ or ramp, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13. In other than Groups B and M occupancies, this provision is limited to openings that do not connect more than four stories.~~
4. ~~In other than Groups B and M occupancies, exit access stairway openings ~~are not required to be enclosed~~ provided that the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the floor opening does not connect more than four stories, the area of the floor opening between stories does not exceed twice the horizontal projected area of the exit access stairway, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.~~
- 4.5. ~~Exit access stairways and ramps within an atrium complying with the provisions of Section 404 ~~are not required to be enclosed.~~~~
- 5.6. ~~Exit access stairways and ramps in open parking garages that serve only the parking garage ~~are not required to be enclosed.~~~~
- 6.7. ~~Exit access stairways and ramps serving outdoor facilities ~~where all portions of the means of egress are essentially open to the outside~~ are not required to be enclosed open-air seating complying with the exit access travel distance~~

requirements of Section 1028.7.

~~8. Exit access stairways serving stages, platforms and technical production areas in accordance with Sections 410.6.2 and 410.6.3 are not required to be enclosed.~~

~~7.9. Exit access stairways and ramps serving are permitted to be open between the balcony, gallery or press box and the main assembly floor in occupancies such as theaters, places of religious worship, auditoriums and sports facilities.~~

~~10. In Group I-3 occupancies, exit access stairways constructed in accordance with Section 408.5 are not required to be enclosed.~~

1018.4 Group I-2 and I-3 occupancies. In Group I-2 and I-3 occupancies, floor openings between stories containing exit access stairways or ramps are required to be enclosed with a shaft enclosure constructed in accordance with Section 713.

Exception: In Group I-3 occupancies, exit access stairways or ramps constructed in accordance with Section 408 are not required to be enclosed.

Re-number Subsequent Sections

(This will be Section 1022)

SECTION 1021 NUMBER OF EXITS AND EXIT CONFIGURATION

1021.1 General. Each story and occupied roof shall have the minimum number of independent exits, or access to exits, as specified in ~~this section~~ Table 1021.1. A single exit or access to a single exit shall be permitted in accordance with Section 1021.2. The required number of exits, or exit access stairways or ramps providing access to exits, from any story shall be maintained until arrival at grade or a public way. ~~Exits or access to exits from any story shall be configured in accordance with this section.~~ Each story above the second story of a building shall have a minimum of one interior or exterior exit stairway, or interior or exterior exit ramp. At each story above the second story that requires a minimum of three or more exits, or access to exits, a minimum of 50 percent of the required exits shall be interior or exterior exit stairways, or interior or exterior exit ramps.

(Notes: Should the 50% maximum in unsprinklered buildings stay? - Yes)

Exceptions:

1. Interior exit stairways and interior exit ramps are not required in open parking garages where the means of egress serves only the open parking garage.
2. Interior exit stairways and interior exit ramps are not required in outdoor facilities where all portions of the means of egress are essentially open to the outside.

SECTION 1026 EXTERIOR EXIT STAIRWAYS AND RAMPS

1026.6 Exterior stairway and ramp protection. *Exterior exit stairways and ramps* shall be separated from the interior of the building as required in Section 1022.2. Openings shall be limited to those necessary for egress from normally occupied spaces.

Exceptions:

1. Separation from the interior of the building is not required for occupancies, other than those in Group R-1 or R-2, in buildings that are no more than two stories above *grade plane* where a *level of exit discharge* serving such occupancies is the first story above *grade plane*.
2. Separation from the interior of the building is not required where the *exterior exit stairway* or *ramp* is served by an exterior *ramp* or balcony that connects two remote *exterior stairways* or other *approved exits* with a perimeter that is not less than 50 percent open. To be considered open, the opening shall be a minimum of 50 percent of the height of the enclosing wall, with the top of the openings no less than 7 feet (2134 mm) above the top of the balcony.
3. ~~Separation from the interior of the building is not required for an *exterior stairway* or *ramp* located in a building or structure that is permitted to have unenclosed *exit access stairways* in accordance with Section 1009.3.~~
4. Separation from the interior of the building is not required for *exterior exit stairways* or *ramps* connected to open-ended *corridors*, provided that Items 3.1 4.1 through 3.5 4.5 are met:
 - 4.1-3.1. The building, including *corridors*, *stairways* or *ramps*, shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
 - 4.2-3.2. The open-ended *corridors* comply with Section 1018.
 - 4.3-3.3. The open-ended *corridors* are connected on each end to an *exterior exit stairway* or *ramp* complying with Section 1026.
 - 4.4-3.4. The *exterior walls* and openings adjacent to the *exterior exit stairway* or *ramp* comply with Section 1022.7.
 - 4.5-3.5. At any location in an open-ended *corridor* where a change of direction exceeding 45 degrees (0.79 rad) occurs, a clear opening of not less than 35 square feet (3.3 m²) or an *exterior stairway* or *ramp* shall be provided. Where clear openings are provided, they shall be located so as to minimize the accumulation of smoke or toxic gases.

SECTION 1027 EXIT DISCHARGE

1027.1 General. *Exits* shall discharge directly to the exterior of the building. The *exit discharge* shall be at grade or shall provide direct access to grade. The *exit discharge* shall not reenter a building. The combined use of Exceptions 1 and 2 below shall not exceed 50 percent of the number and capacity of the required exits.

Exceptions:

1. A maximum of 50 percent of the number and capacity of *interior exit stairways* and *ramps* is permitted to egress through areas on the *level of exit discharge* provided all of the following are met:
 - 1.1 ~~Such~~ Discharge of interior exit stairways and ramps shall be provided with enclosures egress to a free and unobstructed path of travel to an exterior *exit* door and such *exit* is readily visible and identifiable from the point of termination of the enclosure.
 - 1.2 The entire area of the *level of exit discharge* is separated from areas below by construction conforming to the fire-resistance rating for the enclosure.

1.3 The egress path from the *interior exit stairway and ramp* on the *level of exit discharge* is protected throughout by an *approved automatic sprinkler system*. All portions of the *level of exit discharge* with access to the egress path shall either be protected throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, or separated from the egress path in accordance with the requirements for the enclosure of *interior exit stairways or ramps*.

1.4 Where a required interior exit stairway or ramp and an exit access stairway or ramp terminates at the **same** level of exit discharge, the termination of the exit access stairway or ramp and the exit discharge door of the interior exit stairway or ramp shall be separated by a distance of not less than 30 feet (9144 mm) or not less than one-fourth the length of the maximum overall diagonal dimension of the building, whichever is less. The distance shall be measured in a straight line between the exit discharge door from the interior exit stairway or ramp and the last tread of the exit access stairway or termination of slope of the exit access ramp.

(Note:

- Is there a way that a tower stairway that did not serve the occupants of the floor that is using the open stairway that they can skip the separation requirement.
- Is the 30' and 1/4 separation enough, or is this the 3rd exit so it does not have a maximum separation.
- When an open stair comes down in conjunction with a lobby exit, then is there a discharge issue?
- There should be a separation for a lobby stair and an open stair?)

- A maximum of 50 percent of the number and capacity of the *interior exit stairways and ramps* is permitted to egress through a vestibule provided all of the following are met:
 - The entire area of the vestibule is separated from areas below by construction conforming to the *fire-resistance rating for of the interior exit stairway or ramp enclosure*.
 - The depth from the exterior of the building is not greater than 10 feet (3048 mm) and the length is not greater than 30 feet (9144 mm).
 - The area is separated from the remainder of the *level of exit discharge* by construction providing protection at least the equivalent of *approved wired glass in steel frames*.
 - The area is used only for *means of egress* and *exits* directly to the outside.
- Horizontal exits* complying with Section 1025 shall not be required to discharge directly to the exterior of the building.

SECTION 1028 ASSEMBLY

1028.5 Interior balcony and gallery means of egress. For balconies, galleries or press boxes having a seating capacity of 50 or more located in a building, room or space used for assembly purposes, at least two means of egress shall be provided, with one from each side of every balcony, gallery or press box ~~and at least one leading directly to an exit.~~

SECTION 505

MEZZANINES AND EQUIPMENT PLATFORMS

505.2.3 Openness. A *mezzanine* shall be open and unobstructed to the room in which such *mezzanine* is located except for walls not more than 42 inches (1067 mm) in height, columns and posts.

Exceptions:

1. *Mezzanines* or portions thereof are not required to be open to the room in which the *mezzanines* are located, provided that the *occupant load* of the aggregate area of the enclosed space is not greater than 10.
2. A *mezzanine* having two or more ~~means of egress exits or access to exits~~ is not required to be open to the room in which the *mezzanine* is located ~~if at least one of the means of egress provides direct access to an exit from the mezzanine level.~~
3. *Mezzanines* or portions thereof are not required to be open to the room in which the *mezzanines* are located, provided that the aggregate floor area of the enclosed space is not greater than 10 percent of the *mezzanine* area.
4. In industrial facilities, *mezzanines* used for control equipment are permitted to be glazed on all sides.
5. In occupancies other than Groups H and I, that are no more than two *stories* above *grade plane* and equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, a *mezzanine* having two or more *means of egress* shall not be required to be open to the room in which the *mezzanine* is located.

Note: Keep consistent between stories and mezzanines (i.e., 50% in unsprinklered buildings)

Reason statement:

The most substantial part of this change is the relocation of exit access specific stair requirements from the general stair section 1009 to a stand alone section 1018. Another substantial purpose of this code change proposal is for coordination between the open stairway code change from this committee for the last cycle (E5-09/10) and other changes that occurred during the same cycle. In addition, there were areas that needed to be clarified as part of coordination. The committee also wanted to look at the concerns in the Public Comments to address any issues raised there that they thought may not have been covered. Below are the specific reason statements for each section proposed for change:

202 (and 1026.6 exception #3)-The word "interior" was deleted from the definition of exit access stairway and ramp. Generally, this is done because there is no need to restrict exit access to interior elements. Specifically, this was done in coordination with the proposed deletion of exception #3 to section 1026.6. Exception #3 was a holdover from when what are currently exit access stairs were exit stairs. Exception #3 was there to coordinate the allowance for an exterior exit stair to be unprotected when an interior exit stair would be allowed to be unprotected. E5 changed the unenclosed exit stair to an exit access stair. In keeping with that methodology this exception is being deleted and "interior" is being removed from the exit access stair and ramp definitions so that the provisions that allow an unenclosed exit access stair are equally applicable to interior or exterior stairways.

403.5.1-This is in response to E5 public comments. The intent of the separation required by this section is specific to the enclosure, not the stairway, therefore this language has been corrected.

707.3.3 and 707.5.1-These changes are to coordinate with the change in section numbering that occurred with moving the exit access stairway and ramp provisions from 1009 to 1018 and the change to reference section 713 for exit access stairway and ramp rated enclosure design requirements. References related to if an enclosure is required refer to section in 1018, which is where the requirements for when a rated enclosure is required are proposed to be relocated. References related to the construction of the rated enclosure refer to section 713, which is where the requirements for how to rate the enclosure are located.

707.7.1-References to exit access stairways and ramps are proposed to be removed from this section because section 1018 is proposed to reference section 713 for exit access stairway and ramp rated enclosure design. Existing section 713.7.1 addresses prohibited openings therefore this reference is no longer needed in section 707.7.1.

711.4- See reason statement for 707.3.3 above.

712.1.12 – This section has the terminology updated from “unenclosed” to “exit access” stairway to coordinate with terminology approved in E5-09/10. Additionally the section references are updated from 1009.3 to 1018 to coordinate with the relocation of exit access stair provisions from 1009.3 to 1018 explained further below in the reason statement.

713.1 – This is another coordination change related to the relocation of the access stair provisions from 1009.3 to 1018. The enclosure requirements for exit access stairways in 1018 now reference Section 713 for rated enclosure construction requirements, rather than repeating the requirements in chapter 10, therefore this sentence is no longer needed.

1001.2 – The new sentence in 1001.2 was a requirement in two sentences in 1015.2 that is proposed to be relocated here as it is a more general requirement. This was done as part of some additional proposed revisions to section 1015.2 that will be explained below in order.

1007.2 -This is another coordination change related to the relocation of the access stair provisions from 1009.3 to 1018.

1007.6.2-The exception should only apply to exit stairways based on mandatory enclosure requirements for stairways. Exit access stairs may be open or enclosed with non-rated “enclosures” therefore the requirement needs to be clear that separation of areas of refuge serving exit access stairways must comply with 1007.6.2.

1009.2, 1009.3 and subsections– This proposed change will remove the specific requirements for exit access stairways for the general stairway section 1009. 1009 will remain a general stair design section for all stairway details that are not means of egress system specific such as tread and riser dimensions, headroom, widths, etc. The specific

enclosure requirements regarding exit access stairs are proposed to be addressed in a new stand alone section, 1018. This is in keeping with the same organization already in chapter 10 for the specific protection requirements for interior exit stairways and ramps and exterior exit stairways and ramps, as well as exit passageways and horizontal exits, each having a dedicated section that addresses the specific protection requirements for each means of egress element. The idea is to separate the general requirements from the specific requirements with regards to each type of MOE element.

1009.3.1 through 1009.3.1.8 – These sections explain how to construct a rated shaft enclosure around an exit access stair when a fire rating is required based on floor penetration limits being exceeded to prevent vertical smoke and heat migration. They were deleted entirely and not relocated to 1018 because the new sections 1018.3 and 1018.4 are proposed to reference to Section 713 for floor opening enclosure construction requirements. The original concept in E5 09/10 was to repeat the shaft enclosure requirements in the exit access stair section as exit access stair enclosure construction requirements. It was decided that this added unneeded text to the code and because it was a duplicate of requirements based on 713 that a change to one section may not be made to the companion section and therefore has the potential to set up an inconsistency with the two code sections that are intended to be the same.

1010.2 – This section is proposed to be deleted because it is not necessary. Just as 1009 is the general requirements for stairs 1010 is the general requirements for ramps. The specific requirements are addressed in stand alone sections that do not need to be cross referenced from the general section or vice versa.

1011.1 – Revised to use a defined term exist access doorways. This is important because by definition an exit access doorway is a point where a path of travel enters an unenclosed exit access stairway, therefore, this change will require exit signage at the open stairways that would not be required if the term doorway is used. Exit access stairways are means of egress components that should be identified with an exit sign when required based on exit signage location requirements.

1015.1 – Revised to include mezzanines to clarify a mezzanine is a space, not a story, for purposes of means of egress. This also clarifies the 2012 IBC revision to Section 505 where mezzanines now reference Chapter 10 for means of egress.

1015.2 – The requirement in the first sentence was moved and included in the revision to the third sentence. The second sentence was moved to 1001.1 because it is a more general requirement. Exit access stairways and ramps is proposed to be added to the third sentence because by definition an exit access doorway is a point where a path of travel enters an unenclosed exit access stairway but not the stairway itself. Further modifications detailed below detail arrangement of exit access stairways in addition to exit access doorways, therefore, the elements were added to 1015.2 for consistency with the next proposed changes to 1015.2.1 and 1015.2.2.

The reasons statements below are incomplete:

1015.2.1 – Two new sentences. 1st – clarify how to measure the separation of exit access stairways or ramps on the egress floor. 2nd – there is a concern that two open stairways may converge as they move down to the next floor. The proposed language will keep the open exit access stairways the same distance apart as required when the left the egress floor.

1015.2.2 – Separation for the 3rd exit was deleted by E82-04/05. The committee felt the language should be reinserted because now there is no language to describe where additional exits are located.

1016.3 – Deletion eliminates conflicts. Section 1028.7 Exception 2 requires egress to the exterior.

New 1018.1 – Need general scoping for new section for enclosure for exit access stairways or ramps.

New 1018.2 - Clarifies that steps between levels, rather than stories, are always permitted to be open.

New 1018.3 (relocated 1009.3) – Text relocated from 1009.3, but approach reversed to positive for when open stairways are permitted rather than an exception for the enclosure requirements. Group I-2 and I-2 are addressed in new Section 1018.4.

Item 1 – Group I-2 and I-3 addressed in Section 1018.4

Item 2 – Reordering of works

Item 3 – Limits opening similar to those similar to escalators. Combine old Exception 3 and 4 for clarity.

New Item 4 – Add ‘and ramps’ for consistency in this section and application.

New Item 6 – This section is typically only used for large assembly facilities. This revision will narrow it down for specifics

Existing Item 8 – Deleted. This is a level change, not a story, so this is addressed in new 1018.2 and 410.

New Item 7 - Coordination with assembly seating for areas larger than mezzanines. For smaller assembly, the balcony will qualify for the mezzanine exception.

Existing Item 10 – Moved to 1018.4

New 1018.4 – Relocated Group I-2 and I-3 for clarity. Consistent with the defend in place strategy used for these types of facilities.

New 1018.5 - If you cannot meet one of the items, then go to 713 for shaft enclosures. Not repeating requirements like in 1009.3.1 through 1009.3.1.8.

1021.1 – Add the word ‘independent’ for clarity. Move requirements for number of MOE back to the table format for clarity and ease of reference for other requirements. Exceptions are not needed since the number required is based on exit and/or access to exits. Open parking and outdoor stadiums are exit access stairways from each floor above grade.

New Table 1021.1 – move requirements from 1021.1 and 1021.2.4 into Table format. Extend allowances to be number of exits and/or number of access to exits (i.e., exit access doorways, exit access stairways, exit access ramps).

1021.2 – revise language for positive where permitted approach rather than exceptions.

Item 1 & 2 – combined

Existing item 3 – deleted because already addressed in 412.7.3 – need to be consistent in references for MOE

New Item 2 and 4 – revised for exit and exit access

Existing Exception 4 – deleted because already addressed in 412.3 - need to be consistent in references for MOE

Existing Exception 5 - addressed in new Item 6

New Item 5 - revised for exit and exit access

New Item 6 – revised for exit and exit access; relocated from 1021.2.3. No reason to be separate section.

Existing Exception 7 – Since this is exit configuration, not single exit, it has been relocated to new 1021.2.2.

Table 1021.2(1) and 1021.2(2) – Revise headings to limit number of basements to 1.

1021.2.1 – The additional sentence adopts the same ratio formula currently in the code but addresses what you would do when dwelling units were in the mix (i.e., there is no occupant load).

New 1021.2.2 - Was Section 1021.2 Exception 7. Relocated since this is exit configuration for situations where one exit may be within a tenant space and blocked from access from other tenants on the floor.

Existing 1021.2.2 - Deleted. Basements are now addressed in Table 1021.2(1) and 1021.2(2) so not needed here.

Existing 1021.2.3 – deleted and relocated to 1021.2 new Item 6.

Existing 1021.2.4 – deleted and relocated to Table 1021.1

Existing 1021.2.5 – deleted – 3rd stairway is not a required means of egress stairway and already addressed in 403.5.2. Committee feels that you should either reference all MOE in Chapter 4 or rely on Chapter 4 and not reference anything.

Existing 1021.3 - Delete. Now addressed in 1015.2 and 1015.2.1

Existing 1021.3.1 - Delete. Now addressed in 1015.2 and 1015.2.1. Helistops in exception are addressed in 412.7.3.

1028.5 – The deletion is due to misinterpretations that enclosed exit stairways were required when exit access stairways were permitted.