

2009 International Building Code
Section 408
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Draft Date: July 18, 2009

SECTION 408
GROUP I-3

408.1 General. Occupancies in Group I-3 shall comply with the provisions of Sections 408.1 through 408.10 and other applicable provisions of this code (see Section 308.4).

408.1.1 Definition. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

CELL. A room within a housing unit in a detention or correctional facility used to confine inmates or prisoners. ~~A housing unit in a detention or correctional facility for the confinement of not more than two residents.~~

CELL COMPLEX. A cluster or group of cells in a jail, prison or other detention facility, together with rooms used for accessory purposes, all of which open into the cell complex, and are used for functions such as dining, counseling, exercise, classrooms, sick call, visiting, storage, staff offices, control rooms or similar functions, and interconnecting corridors all within the cell complex.

CELL, DORMITORY. A housing area in a detention or correctional facility designated to house three or more residents.

CELL TIER. Levels of cells vertically stacked above one another within a housing unit. ~~Cell tiers are located one level above the other, and do not exceed two levels per floor. A cell tier shall not be considered a story or mezzanine.~~

DAYROOM. A room which is adjacent to a cell, or cell tier, or dormitory and which is used as a dining, exercise or other activity room for residents.

HOUSING UNIT. A dormitory or a group of cells with a common dayroom in Group I-3. An area intended to lodge residents on a 24-hour basis where accommodations are provided for sleeping.

RESIDENT HOUSING AREA. Includes any cell, cell complex, cell dormitory, cell tier, day room or housing unit.

~~**Restraint.** Shall mean the physical retention of a person within a room, cell or holding facility by any means, or within a building by means of locked doors.~~

SALLYPORT. A security vestibule with two or more doors or gates where the intended purpose is to prevent continuous and unobstructed passage by allowing the release of only one door or gate at a time. ~~A compartment provided with two or more doors where the intended purpose is to prevent continuous and unobstructed passage by allowing the release of only one door at a time.~~

408.2 Other occupancies. Buildings or portions of buildings in Group I-3 occupancies where security operations necessitate the locking of required means of egress shall be permitted to be classified as a different occupancy. Occupancies classified as other than Group I-3 shall meet the applicable requirements of this code for that occupancy provided provisions are made for the release of occupants at all times.

Where security operations necessitate the locking of required means of egress, as allowed in Occupancy Conditions 2, 3, 4 and 5, provisions shall be made for the release of occupants at all times.

Means of egress from detention and correctional occupancies that traverse other use areas shall, as a minimum, conform to requirements for detention and correctional occupancies.

Exception: It is permissible to exit through a horizontal exit into other contiguous occupancies that do not conform to detention and correctional occupancy egress provisions but that do comply with requirements set forth in the appropriate occupancy, as long as the occupancy is not a Group H use. ~~Exception: It is permissible to exit through a horizontal exit conforming to Section 1022, into other contiguous occupancies which do not conform to detention and correctional occupancy egress provisions, but which do comply with requirements~~

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~~set forth in the appropriate occupancy, as long as the occupancy is not a kitchen, storeroom, restroom, closet or a Group H occupancy.~~

glazing installed in doors and interior walls at each landing level providing access to the enclosure, provided that the following conditions are met:

408.3 Means of egress. Except as modified or as provided for in this section, the provisions of Chapter 10 shall apply.

408.3.1 Door width. Doors to resident sleeping units shall have a clear width of not less than 28 inches (711 mm).

408.3.2 Sliding doors. Where doors in a means of egress are of the horizontal-sliding type, the force to slide the door to its fully open position shall not exceed 50 pounds (220 N) with a perpendicular force against the door of 50 pounds (220 N).

408.3.3 Guard tower doors. A hatch or trap door not less than 16 square feet (610 m²) in area through the floor and having minimum dimensions of not less than 2 feet (610 mm) in any direction shall be permitted to be used as a portion of the means of egress from guard towers.

408.3.4 Spiral stairways. Spiral stairways that conform to the requirements of Section 1009.9 are permitted for access to and between staff locations.

408.3.5 Ship ladders. Ship ladders shall be permitted for egress from control rooms or elevated facility observation rooms in accordance with Section 1009.11.

408.3.6 Exit discharge. Exits are permitted to discharge into a fenced or walled courtyard. Enclosed yards or courts shall be of a size to accommodate all occupants, a minimum of 50 feet (15 240 mm) from the building with a net area of 15 square feet (1.4 m²) per person.

408.3.7 Sallyports. A sallyport shall be permitted in a means of egress where there are provisions for continuous and unobstructed passage through the sallyport during an emergency egress condition.

408.3.8 Exit enclosures. One of the required exit enclosures in each building shall be permitted to have

1. The exit enclosure shall not serve more than four floor levels.
2. Exit doors shall not be less than 3/4-hour fire door assemblies complying with Section 715.4
3. The total area of glazing at each floor level shall not exceed 5,000 square inches (3m²) and individual panels of glazing shall not exceed 1,296 square inches (0.84 m²).
4. The glazing shall be protected on both sides by an automatic sprinkler system. The sprinkler system shall be designed to wet completely the entire surface of any glazing affected by fire when actuated.
5. The glazing shall be in a gasketed frame and installed in such a manner that the framing system will deflect without breaking (loading) the glass before the sprinkler system operates.
6. Obstructions, such as curtain rods, drapery traverse rods, curtains, drapes or similar materials shall not be installed between the automatic sprinklers and the glazing.

~~408.3.8 Cell tier exiting.~~

~~408.3.8.1 Two exits are required from the cell tier above the first level if the occupant load exceeds 10.~~

~~408.3.8.2 Two exits are required from the cell tiers above the second level.~~

~~408.3.8.3 Cell tier exit balconies may not have any dead end exceeding 20 feet (6096 mm) in length.~~

408.4 Locks. Egress doors are permitted to be locked in accordance with the applicable use condition. Doors from a refuge area to the exterior are permitted to be locked with a key in lieu of locking methods described in Section 408.4.1. The keys to unlock the exterior doors shall be available at all times and the locks shall be operable from both sides of the door.

408.4.1 Remote release. Remote release of locks on doors in a means of egress shall be provided with reliable means of operation, remote from the

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resident living areas, to release locks on all required doors. In Occupancy Conditions 3 or 4, the arrangement, accessibility and security of the release mechanism(s) required for egress shall be such that with the minimum available staff at any time, the lock mechanisms are capable of being released within 2 minutes.

Exception: Provisions for remote locking and unlocking of occupied rooms in Occupancy Condition 4 are not required provided that not more than 10 locks are necessary to be unlocked in order to move occupants from one smoke compartment to a refuge area within 3 minutes. The opening of necessary locks shall be accomplished with not more than two separate keys.

408.4.2 Power-operated doors and locks. Power-operated sliding doors or power-operated locks for swinging doors shall be operable by a manual release mechanism at the door, and either emergency power or a remote mechanical operating release shall be provided.

Exception: Emergency power is not required in facilities with 10 locks or less complying with the exception to Section 408.4.1.

408.4.3 Redundant operation. Remote release, mechanically operated sliding doors or remote release, mechanically operated locks shall be provided with a mechanically operated release mechanism at each door, or shall be provided with a redundant remote release control.

408.4.4 Relock capability. Doors remotely unlocked under emergency conditions shall not automatically relock when closed unless specific action is taken at the remote location to enable doors to relock.

408.5 Protection of vertical openings. Any vertical opening shall be protected by a shaft enclosure in accordance with Section 708, or shall be in accordance with Section 408.5.1.

Exception: Housing areas designed as atriums in accordance with Section 404.

Exceptions:

- ~~1. A day room opening between floor levels of cell tiers is permitted without enclosure protection between the levels, provided the following conditions are met:
 - 1.1. The entire day room is open and unobstructed so as to enable observation of the day room by supervisory personnel, and
 - 1.2. Means of egress capacity is sufficient to provide simultaneous egress for all occupants from all interconnected levels and areas.~~
- ~~2. Housing areas designed as atriums in accordance with Section 404.~~
- ~~3. Mechanical chases serving cell tiers within a single cell complex are not required to comply with Section 707.~~

408.5.1 Floor openings. Openings in floors within a housing unit are permitted without a shaft enclosure, provided all of the following conditions are met:

1. The entire normally occupied areas so interconnected are open and unobstructed so as to enable observation of the areas by supervisory personnel;
2. Means of egress capacity is sufficient for all occupants from all interconnected cell tiers and areas;
3. The height difference between the floor levels of the highest and lowest cell tiers shall not exceed 23 feet (7010 mm); and
4. Egress from any portion of the cell tier to an exit or exit access door shall not require travel on more than one additional floor level within the housing unit.

408.5.2 Shaft openings in communicating floor levels. Where a floor opening is permitted between communicating floor levels of a housing unit in accordance with Section 408.5.1, plumbing and mechanical chases serving vertically stacked individual cells contained within the housing unit shall be permitted without a shaft enclosure.

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408.6 Smoke barrier. Occupancies in Group I-3 shall have smoke barriers complying with Sections 408.8 and 710 to divide every story occupied by residents for sleeping, or any other story having an occupant load of 50 or more persons, into at least two smoke compartments.

Exception: Spaces having a direct exit to one of the following, provided that the locking arrangement of the doors involved complies with the requirements for doors at the smoke barrier for the use condition involved:

1. A public way.
2. A building separated from the resident housing area by a 2-hour fire-resistance-rated assembly or 50 feet (15 240 mm) of open space.
3. A secured yard or court having a holding space 50 feet (15 240 mm) from the housing area that provides 6 square feet (0.56 m²) or more of refuge area per occupant, including residents, staff and visitors.

408.6.1 Smoke compartments. The maximum number of residents in any smoke compartment shall be 200. The travel distance to a door in a smoke barrier from any room door required as exit access shall not exceed 150 feet (45720 mm). The travel distance to a door in a smoke barrier from any point in a room shall not exceed 200 feet (60 960 mm).

408.6.2 Refuge area. At least 6 net square feet (0.56m²) per occupant shall be provided on each side of each smoke barrier for the total number of occupants in adjoining smoke compartments. This space shall be readily available wherever the occupants are moved across the smoke barrier in a fire emergency.

408.6.3 Independent egress. A means of egress shall be provided from each smoke compartment created by smoke barriers without having to return through the smoke compartment from which means of egress originates.

408.7 Security glazing. In occupancies in Group I-3, windows and doors in 1-hour fire barriers constructed in accordance with Section 707, fire partitions constructed

in accordance with Section 709 and smoke barriers constructed in accordance with Section 710 shall be permitted to have security glazing installed provided that the following conditions are met.

1. Individual panels of glazing shall not exceed 1,296 square inches (0.84 m²).
2. The glazing shall be protected on both sides by an automatic sprinkler system. The sprinkler system shall be designed to, when actuated, wet completely the entire surface of any glazing affected by fire.
3. The glazing shall be in a gasketed frame and installed in such a manner that the framing system will deflect without breaking (loading) the glass before the sprinkler system operates.
4. Obstructions, such as curtain rods, drapery traverse rods, curtains, drapes or similar materials shall not be installed between the automatic sprinklers and the glazing.

~~408.7 Subdivision of resident housing areas. Group I, Division 3, Occupancy Condition 5 sleeping areas and any contiguous day rooms, group activity space or other common spaces where residents are housed shall be separated from other spaces in accordance with Sections 408.7.1 through 408.7.1.2.~~

~~408.7.1 Occupancy Condition 5. Each sleeping area in Occupancy Condition 5 shall be separated from adjacent sleeping areas, corridors and common spaces by a solid partition. Additionally, common spaces shall be separated from the exit access corridor by a smoke barrier.~~

~~408.7.1.1 Door openings. The aggregate area of openings in a sleeping room door in Occupancy Condition 5 shall not exceed 120 square inches (77 419 mm²). The aggregate area shall include all openings, including door undercuts, food passes and grilles. Openings shall be not more than 36 inches (914 mm) above the floor. The openings shall be closable from the day room side.~~

~~408.7.1.2 Smoke tight doors. Doors in partitions required to be smoke tight shall be 13/4 inch (45 mm) solid wood or security grade metal. Gaskets, latches and door closers are not required on cell doors.~~

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408.8 Subdivision of resident housing areas. Sleeping areas and any contiguous day room, group activity space or other common spaces where residents are housed shall be separated from other spaces in accordance with Sections 408.8.1 through 408.8.4.

408.8.1 Occupancy Conditions 3 and 4. Each sleeping area in Occupancy Conditions 3 and 4 shall be separated from the adjacent common spaces by a smoke-tight partition where the travel distance from the sleeping area through the common space to the corridor exceeds 50 feet (15 240 mm).

408.8.2 Occupancy Condition 5. Each sleeping area in Occupancy Condition 5 shall be separated from adjacent sleeping areas, corridors and common spaces by a smoke tight partition. Additionally, common spaces shall be separated from the corridor by a smoke-tight partition.

408.8.3 Openings in room face. The aggregate area of openings in a solid sleeping room face in Occupancy Conditions 2, 3, 4 and 5 shall not exceed 120 square inches (77 419 mm²). The aggregate area shall include all openings including door undercuts, food passes and grilles. Openings shall be not more than 36 inches (914 mm) above the floor. In Occupancy Condition 5, the openings shall be closeable from the room side.

408.8.4 Smoke-tight doors. Doors in openings in partitions required to be smoke tight by Section 408.8 shall be substantial doors, of construction that will resist the passage of smoke. Latches and door closures are not required on cell doors.

408.9 Fire protection systems:

408.9 Windowless buildings. For the purposes of this section, a windowless building or portion of a building is one with nonopenable windows, windows not readily breakable or without windows. Windowless buildings shall be provided with an engineered smoke control system to provide a tenable environment for exiting from the smoke

compartment in the area of fire origin in accordance with Section 909 for each windowless smoke compartment.

408.9.1 Smoke detectors. An approved automatic smoke detection system shall be installed throughout resident housing areas, including sleeping areas and contiguous dayrooms, group activity spaces and other common spaces normally accessible to residents.

Exception: Other approved smoke detection arrangements providing equivalent protection, such as placing detectors in exhaust ducts from cells or behind protective grilles, are allowed for sleeping rooms with four or fewer occupants.

[F] 408.9.2 Fire alarm system. A fire alarm system shall be provided in accordance with Section 907.2.6.3.

408.9.3 Emergency ventilation. Group I, Division 3, resident housing areas shall be equipped with smoke and heat venting by one of the following:

1. A manually operated mechanical system capable of at least six air changes per hour of exhaust with mechanical or natural makeup air.
2. Roof vents capable of being manually operated, installed in accordance with their listing and Section 910.3.2. The maximum center-to-center spacing between vents shall be 100 feet (45 720 mm) and the venting ratio of effective area of vent openings to floor area shall be 1:150.