

E43-21

Proposed Change as Submitted

Proponents: John Woestman, Kellen Company, representing Builders Hardware Manufacturers Assoc. (BHMA)
(jwoestman@kellencompany.com)

2021 International Building Code

Add new definition as follows:

AUTOMATIC FLUSH BOLT. Door locking hardware, installed on the inactive leaf of a pair of doors, which has a bolt that is extended automatically into the door frame or floor when the active leaf is closed after the inactive leaf, and which holds the inactive leaf in a closed position. When the active leaf is opened, the automatic flush bolt retracts the bolt or rod allowing the inactive leaf to be opened (see CONSTANT LATCHING BOLT, DEAD BOLT, MANUAL BOLT).

CONSTANT LATCHING BOLT. Door locking hardware installed on the inactive leaf of a pair of doors, which has a bolt that automatically latches into the door frame or the floor, and which holds the inactive leaf in a closed position. The latch bolt is retracted manually to allow the inactive leaf to be opened.

DEAD BOLT. Door locking hardware with a bolt which is extended and retracted by action of the lock mechanism (see AUTOMATIC FLUSH BOLT, CONSTANT LATCHING BOLT, MANUAL BOLT).

MANUAL BOLT. Door locking hardware operable from one side of the door, or from the edge of a door leaf, with a bolt or rod extended and retracted by manual movement of the bolt or rod, such as a manual flush bolt or manual surface bolt (see AUTOMATIC FLUSH BOLT, CONSTANT LATCHING BOLT, DEAD BOLT).

Revise as follows:

1010.2.1 Unlatching. The unlatching of any door or leaf for egress shall require not more than one motion in a single linear or rotational direction to release all latching and all locking devices. Manual bolt locks are not permitted.

Exceptions:

1. Places of detention or restraint.
2. Where ~~manually-operated~~ manual bolt locks are permitted by Section ~~1010.2.5~~ 1010.2.4 Item 4.
3. Doors with *automatic flush bolts* as permitted by Section 1010.2.4, Item 4.
4. Doors from individual *dwelling units* and *sleeping units* of Group R occupancies as permitted by Section 1010.2.4, Item 5.

1010.2.4 Locks and latches. Locks and latches shall be permitted to prevent operation of doors where any of the following exist:

1. Places of detention or restraint.
2. In Group I-1, Condition 2 and Group I-2 occupancies where the clinical needs of persons receiving care require containment or where persons receiving care pose a security threat, provided that all clinical staff can readily unlock doors at all times, and all such locks are keyed to keys carried by all clinical staff at all times or all clinical staff have the codes or other means necessary to operate the locks at all times.
3. In buildings in occupancy Group A having an *occupant load* of 300 or less, Groups B, F, M and S, and in *places of religious worship*, the main door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:
 - 3.1. The locking device is readily distinguishable as locked.
 - 3.2. A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background.
 - 3.3. The use of the key-operated locking device is revocable by the *building official* for due cause.
4. ~~Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts does not have a doorknob or surface-mounted hardware.~~ Manual bolt locks, automatic flush bolts, and constant latching bolts on the inactive leaf of a pair of doors in accordance with Table 1010.2.4, provided the inactive leaf having a manual bolt lock, automatic flush bolt, or constant latching bolt does not have a doorknob, panic hardware, or similar operating hardware.
5. Doors from individual *dwelling* or *sleeping units* of Group R occupancies having an *occupant load* of 10 or less are permitted to be equipped with a night latch, *dead bolt*, manual bolt, or security chain, provided such devices are operable from the inside without the use of a key or tool.

6. *Fire doors* after the minimum elevated temperature has disabled the unlatching mechanism in accordance with *listed fire door* test procedures.
7. Doors serving roofs not intended to be occupied shall be permitted to be locked preventing entry to the building from the roof.
8. Other than egress *courts*, where occupants must egress from an exterior space through the building for *means of egress*, exit access doors shall be permitted to be equipped with an approved locking device where installed and operated in accordance with all of the following:
 - 8.1. The maximum *occupant load* shall be posted where required by Section 1004.9. Such signage shall be permanently affixed inside the building and shall be posted in a conspicuous space near all the exit access doorways.
 - 8.2. A weatherproof telephone or two-way communication system installed in accordance with Sections 1009.8.1 and 1009.8.2 shall be located adjacent to not less than one required exit access door on the exterior side.
 - 8.3. The egress door locking device is readily distinguishable as locked and shall be a key-operated locking device.
 - 8.4. A clear window or glazed door opening, not less than 5 square feet (0.46 m²) in area, shall be provided at each exit access door to determine if there are occupants using the outdoor area.
 - 8.5. A readily visible, durable sign shall be posted on the interior side on or adjacent to each locked required exit access door serving the exterior area stating, "THIS DOOR TO REMAIN UNLOCKED WHEN THE OUTDOOR AREA IS OCCUPIED." The letters on the sign shall be not less than 1 inch (25.4 mm) high on a contrasting background.
 - 8.6. The *occupant load* of the occupied exterior area shall not exceed 300 occupants in accordance with Section 1004.
9. Locking devices are permitted on doors to balconies, decks or other exterior spaces serving individual dwelling or sleeping units.
10. Locking devices are permitted on doors to balconies, decks or other exterior spaces of 250 square feet (23.23 m²) or less serving a private office space.

Add new text as follows:

TABLE 1010.2.4 MANUAL BOLTS, AUTOMATIC FLUSH BOLTS AND CONSTANT LATCHING BOLTS ON THE INACTIVE LEAF OF A PAIR OF DOORS

APPLICATION WHERE A PAIR OF DOORS WITH AN ACTIVE LEAF AND INACTIVE LEAF SERVE THE FOLLOWING:	OCCUPANT LOAD OF SPACE SERVED BY THE PAIR OF DOORS	THE PAIR OF DOORS ARE REQUIRED TO COMPLY WITH SECTION 716	PERMITTED USES OF MANUAL BOLT LOCKS, AUTOMATIC FLUSH BOLTS AND CONSTANT LATCHING BOLTS ON THE INACTIVE LEAF OF A PAIR OF DOORS.		
			<u>Manual flush bolts or manual surface bolts with manual extension and retraction of bolt.</u>	<u>Automatic flush bolts with automatic extension and retraction of bolt by action of active leaf.</u>	<u>Constant latching bolts with automatic latching and manual retraction of bolt or latch.</u>
<u>Group B, F, or S occupancy.</u>	<u>Less than 50</u>	<u>NO</u>	<u>P</u>	<u>P</u>	<u>P</u>
		<u>YES</u>	<u>NP</u>	<u>P^b</u>	<u>P</u>
<u>Group B,F, or S occupancies where the building is equipped with an automatic sprinkler system in accordance with Section 903.3.1.1, and where the inactive leaf is not needed to meet egress capacity requirements.</u>	<u>Occupant load served by the active leaf.</u>	<u>NO</u>	<u>P</u>	<u>P</u>	<u>P</u>
		<u>YES</u>	<u>NP</u>	<u>P^b</u>	<u>P</u>
<u>Patient care rooms in Group I-2 occupancies, and where the inactive leaf is not needed to meet egress capacity requirements.</u>	<u>Occupant load served by the active leaf.</u>	<u>NO</u>	<u>NP</u>	<u>P^b</u>	<u>P</u>
		<u>YES</u>	<u>NP</u>	<u>P^b</u>	<u>P</u>
<u>Occupancies where panic hardware is not required, the egress doors are used in pairs, and where both the active and inactive leaves are required to meet egress capacity requirements.</u>	<u>Occupant load served by both leaves.</u>	<u>NO</u>	<u>NP</u>	<u>P</u>	<u>NP</u>
		<u>YES</u>	<u>NP</u>	<u>P^b</u>	<u>NP</u>
<u>Storage or equipment rooms.</u>	<u>Occupant load served by the active leaf.</u>	<u>NO</u>	<u>P^a</u>	<u>P</u>	<u>P</u>
		<u>YES</u>	<u>P^a</u>	<u>P</u>	<u>P</u>

P - Permitted; NP - Not permitted.

- a. Not permitted in Group I-2 where corridor doors are required to be positive latching, and the storage or equipment room door is in the corridor.
- b. Permitted where both doors are self-closing or automatic-closing, and have a coordinator that causes the inactive leaf to be closed prior to the active leaf.

Delete without substitution:

1010.2.5 Bolt locks.

Manually operated flush bolts or surface bolts are not permitted.

Exceptions:

- ~~1. On doors not required for egress in individual dwelling units or sleeping units.~~
- ~~2. Where a pair of doors serves a storage or equipment room, manually operated edge or surface-mounted bolts are permitted on the inactive leaf.~~
- ~~3. Where a pair of doors serves an occupant load of less than 50 persons in a Group B, F or S occupancy, manually operated edge or surface-mounted bolts are permitted on the inactive leaf. The inactive leaf shall not contain doorknobs, panic bars or similar operating hardware.~~
- ~~4. Where a pair of doors serves a Group B, F or S occupancy, manually operated edge or surface-mounted bolts are permitted on the inactive leaf provided that such inactive leaf is not needed to meet egress capacity requirements and the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. The inactive leaf shall not contain doorknobs, panic bars or similar operating hardware.~~
- ~~5. Where a pair of doors serves patient care rooms in Group I-2 occupancies, self-latching edge or surface-mounted bolts are permitted on the inactive leaf provided that the inactive leaf is not needed to meet egress capacity requirements and the inactive leaf shall not contain doorknobs, panic bars or similar operating hardware.~~

Reason: The IBC is rather confusing regarding dead bolts, manual bolt locks, and automatic flush bolts leading to significant variability in interpretations and application of the code.

This proposal offers four definitions, and revises sections of the IBC where these hardware items are addressed with requirements.

The most significant revision is to incorporate all the requirements of Section 1010.2.5 into Sections 1010.2.1 and 1010.2.4.

Here's what happened with requirements and exceptions of 1010.2.5:

- The charging language that "manually operated flush bolts and surface bolts are not permitted" is revised based on the proposed definition of "manual bolt" and included in the charging language of 1010.2.1. Exception 2 of 1010.2.1 was also revised based on the definition of "manual bolt".
- Exception 1 of 1010.2.5 is included in revised 1010.2.4 Item 5 with inserting "manual bolt" in that item.
- Exceptions 2 through 5 of 1010.2.5 are included in proposed Table 1010.2.4. Item 4 of 1010.2.4 is revised to reference Table 1010.2.4.

The applications in Exceptions 2 through 5 of 1010.2.5 are incorporated into proposed Table 1010.2.4. Also included in this table is Item 4 of 1010.2.4, which is an application where automatic flush bolts are acceptable: Spaces served by egress doors in pairs where the doors are not required to be equipped with panic hardware, and both door leaves are used for egress capacity.

Also, doors required to comply with IBC Section 716 (opening protectives) are also required to be self-latching or automatic latching. Proposed Table 1010.2.4 includes this determining factor as to what hardware may be used.

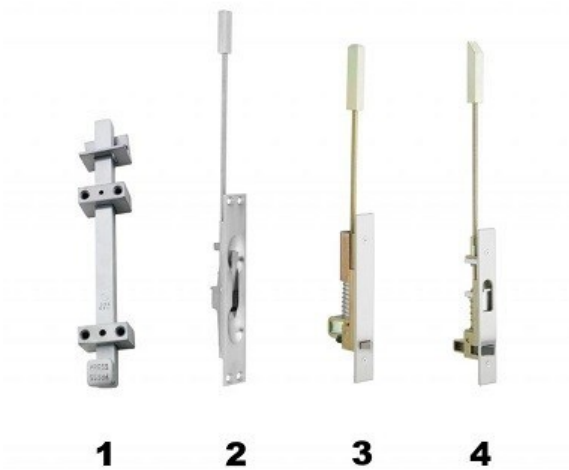
Several technical changes were incorporated in proposed Table 1010.2.4 that are not currently in these sections:

- For Group I-2, the table clarifies manual bolt locks are not appropriate for use on patient care room doors where the door is required to be positive latching.
- The current requirements don't differentiate between doors required to be fire-rated or not. That is, required to comply with Section 716 or not.
- For I-2 patient care rooms, Exception 5 of 1010.2.5 permitted what are called constant latching bolts. But the code was silent on other applications where these door hardware items may be desired and appropriate (where the inactive leaf is not needed for egress).
- Didn't address using automatic flush bolts on the inactive leaf of patient care rooms, if the doors have closers and a coordinator which causes the inactive leaf to close prior to the active leaf.
- For storage and equipment rooms, manual bolts have been permitted, but automatic flush bolts and constant latching bolts would also be considered acceptable on the inactive leaf of storage and equipment rooms.

Manual bolt locks are typically located on the egress side of a door and have no operating parts on the other side of the door. Manual bolts are typically installed on the surface of the door panel, or installed flush with the edge or surface of the door.

A dead bolt is manually extended from the egress side of the door by turning a thumb turn, or by manually pushing a button causing spring action to extend the lock bolt. Dead bolts are typically retracted (unlocked) from the egress side of the door by a thumb turn, or operation of the handle or lever. In very limited applications dead bolts may be extended and retracted by use of a key (see IBC Section 1010.2.4 Exception 3). On the ingress side of the door (the access side), dead bolts are typically extended (locked) and retracted (unlocked) by use of a key. Dead bolts are not considered to be manual bolt locks (see the definition for manual bolts).

The image below illustrates two manual bolts, an automatic flush bolt, and a constant latching (flush) bolt.



1 – Manual bolt mounted on the face of the door; the bolt is operated manually.

2 – Manual bolt mounted flush on the door edge; the bolt is projected and retracted manually using a small lever.

3 – Automatic flush bolt installed on the inactive leaf, and projected automatically when the active leaf closes, and retracted when the active leaf opens.

4 – Constant-latching (flush) bolt has a self-latching bolt which is retracted manually.



Dead bolt. Courtesy Allegion

Cost Impact: The code change proposal will not increase or decrease the cost of construction

This proposal provides updated guidance on “shall be permitted” locking hardware, and is an attempt to bring clarity to the requirements in the IBC.

E43-21

Public Hearing Results

Committee Action:

Disapproved

Committee Reason: This proposal was disapproved, however the committee felt that cleanup of the language for bolts is needed. In Table 1010.2.4, it is recommended to take out "inactive leaf is not needed to meet egress capacity requirements." Would this be confused with Group I-2 constant latching? (Vote : 10-3)

E43-21

Individual Consideration Agenda

Public Comment 1:

IBC: 1010.2.1, 1010.2.4, Table 1010.2.4 (IFC:[BE] 1010.2.1, 1010.2.4, Table 1010.2.4)

Proponents: John Woestman, representing Builders Hardware Manufacturers Assoc. (BHMA) (jwoestman@kellencompany.com) requests As Modified by Public Comment

Modify as follows:

2021 International Building Code

1010.2.1 Unlatching . The unlatching of any door or ~~leaf for egress shall require not more than one motion in~~ leaf for egress shall require not more than one motion in a single linear or rotational direction to release all latching and all ~~locking devices.~~ locking devices. ~~Manual bolt locks bolts~~ are not permitted.

Exceptions:

1. Places of detention or restraint.
2. ~~Where manual bolt locks are permitted by Section 1010.2.4 Item 4.~~
3. ~~Doors with automatic flush bolts as permitted by Section 1010.2.4, Item 4.~~
- 2.4. Doors with manual bolts, automatic flush bolts and constant latching bolts as permitted by Section 1010.2.4, Item 4.
- 3.4. Doors from individual dwelling units and sleeping units of Group R occupancies as permitted by Section 1010.2.4, Item 5.

1010.2.4 Locks and latches . Locks and latches shall be permitted to prevent operation of doors where any of the following exist:

1. Places of detention or restraint.
2. In Group I-1, Condition 2 and Group I-2 occupancies where the clinical needs of persons receiving care require containment or where persons receiving care pose a security threat, provided that all clinical staff can readily unlock doors at all times, and all such locks are keyed to keys carried by all clinical staff at all times or all clinical staff have the codes or other means necessary to operate the locks at all times.
3. In buildings in occupancy Group A having an *occupant load* of 300 or less, Groups B, F, M and S, and in *places of religious worship*, the main door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:
 - 3.1. The locking device is readily distinguishable as locked.
 - 3.2. A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background.
 - 3.3. The use of the key-operated locking device is revocable by the *building official* for due cause.
4. ~~Manual bolt locks bolts, automatic flush bolts, and constant latching bolts~~ on the inactive leaf of a pair of doors in accordance with Table 1010.2.4, provided the inactive leaf ~~having a manual bolt lock, automatic flush bolt, or constant latching bolt~~ does not have a doorknob, panic hardware, or similar operating hardware.
5. Doors from individual *dwelling* or *sleeping units* of Group R occupancies having an *occupant load* of 10 or less are permitted to be equipped with a night latch, *dead bolt*, *manual bolt*, or security chain, provided such devices are openable from the inside without the use of a key or tool.
6. *Fire doors* after the minimum elevated temperature has disabled the unlatching mechanism in accordance with *listed fire door* test procedures.
7. Doors serving roofs not intended to be occupied shall be permitted to be locked preventing entry to the building from the roof.
8. Other than egress *courts*, where occupants must egress from an exterior space through the building for *means of egress*, exit access doors shall be permitted to be equipped with an approved locking device where installed and operated in accordance with all of the following:
 - 8.1. The maximum *occupant load* shall be posted where required by Section 1004.9. Such signage shall be permanently affixed inside the building and shall be posted in a conspicuous space near all the exit access doorways.
 - 8.2. A weatherproof telephone or two-way communication system installed in accordance with Sections 1009.8.1 and 1009.8.2 shall be located adjacent to not less than one required exit access door on the exterior side.
 - 8.3. The egress door locking device is readily distinguishable as locked and shall be a key-operated locking device.
 - 8.4. A clear window or glazed door opening, not less than 5 square feet (0.46 m²) in area, shall be provided at each exit access door to determine if there are occupants using the outdoor area.

- 8.5. A readily visible, durable sign shall be posted on the interior side on or adjacent to each locked required exit access door serving the exterior area stating, "THIS DOOR TO REMAIN UNLOCKED WHEN THE OUTDOOR AREA IS OCCUPIED." The letters on the sign shall be not less than 1 inch (25.4 mm) high on a contrasting background.
- 8.6. The *occupant load* of the occupied exterior area shall not exceed 300 occupants in accordance with Section 1004.
9. Locking devices are permitted on doors to balconies, decks or other exterior spaces serving individual dwelling or sleeping units.
10. Locking devices are permitted on doors to balconies, decks or other exterior spaces of 250 square feet (23.23 m²) or less serving a private office space.

TABLE 1010.2.4 MANUAL BOLTS, AUTOMATIC FLUSH BOLTS AND CONSTANT LATCHING BOLTS ON THE INACTIVE LEAF OF A PAIR OF DOORS

APPLICATION WHERE A PAIR OF DOORS WITH AN ACTIVE LEAF AND INACTIVE LEAF SERVE THE FOLLOWING:	OCCUPANT LOAD OF SPACE SERVED BY THE PAIR OF DOORS	THE PAIR OF DOORS ARE REQUIRED TO COMPLY WITH SECTION 716	PERMITTED USES OF MANUAL BOLT LOCKS, AUTOMATIC FLUSH BOLTS AND CONSTANT LATCHING BOLTS ON THE INACTIVE LEAF OF A PAIR OF DOORS:		
			Manual flush bolts or manual surface bolts with manual extension and retraction of bolt.	Automatic flush bolts with automatic extension and retraction of bolt by action of active leaf.	Constant latching bolts with automatic latching and manual retraction of bolt or latch.
Group B, F, or S occupancy.	Less than 50	NO	P	P	P
		YES	NP	P ^b	P
Group B, F, or S occupancies where the building is equipped with an automatic sprinkler system in accordance with Section 903.3.1.1, and where the inactive leaf is not needed to meet egress capacity requirements.	Occupant load served by the active leaf.	NO	P	P	P
		YES	NP	P ^b	P
Patient care rooms in Group I-2 occupancies, and where the inactive leaf is not needed to meet egress capacity requirements.	Occupant load served by the active leaf.	NO	NP	P ^b	P
		YES	NP	P ^b	P
Occupancies where panic hardware is not required, the egress doors are used in pairs, and where both the active and inactive leaves are required to meet egress capacity requirements.	Occupant load served by both leaves.	NO	NP	P	NP
		YES	NP	P ^b	NP
Storage or equipment rooms.	Occupant load served by the active leaf.	NO	P ^a	P	P
		YES	P ^a	P	P

P— Permitted; NP— Not permitted.

- a. Not permitted in Group I-2 where corridor doors are required to be positive latching, and the storage or equipment room door is in the corridor.
- b. Permitted where both doors are self-closing or automatic-closing, and have a coordinator that causes the inactive leaf to be closed prior to the active leaf.

**TABLE 1010.2.4
MANUAL BOLTS, AUTOMATIC FLUSH BOLTS AND CONSTANT LATCHING BOLTS ON THE INACTIVE LEAF
OF A PAIR OF DOORS**

<u>APPLICATION WITH A PAIR OF DOORS WITH AN ACTIVE LEAF AND INACTIVE LEAF</u>	<u>THE PAIR OF DOORS ARE REQUIRED TO COMPLY WITH SECTION 716</u>	<u>PERMITTED USES OF MANUAL BOLTS, AUTOMATIC FLUSH BOLTS, AND CONSTANT LATCHING BOLTS ON THE INACTIVE LEAF OF A PAIR OF DOORS.</u>		
		<u>Surface or flush mounted manual bolts</u>	<u>Automatic flush bolts</u>	<u>Constant latching bolts</u>
<u>Group B, F, or S occupancies with occupant load less than 50.</u>	<u>No</u>	<u>P</u>	<u>P</u>	<u>P</u>
	<u>Yes</u>	<u>NP</u>	<u>NP^b</u>	<u>P</u>
<u>Group B,F, or S occupancies where the building is equipped with automatic sprinkler system in accordance with Section 903.3.1.1 and the inactive leaf is not needed to meet egress capacity requirements.</u>	<u>No</u>	<u>P</u>	<u>P</u>	<u>P</u>
	<u>Yes</u>	<u>NP</u>	<u>NP^b</u>	<u>P</u>
<u>Group I-2 patient care and sleeping rooms where inactive leaf is not needed to meet egress capacity requirements.</u>	<u>No</u>	<u>NP</u>	<u>NP^b</u>	<u>P</u>
	<u>Yes</u>	<u>NP</u>	<u>NP^b</u>	<u>P</u>
<u>Any occupancy where panic hardware is not required, egress doors are used in pairs, and where both leaves are required to meet egress capacity requirements.</u>	<u>No</u>	<u>NP</u>	<u>P</u>	<u>NP</u>
	<u>Yes</u>	<u>NP</u>	<u>NP^b</u>	<u>NP</u>
<u>Storage or equipment rooms where the inactive leaf is not needed to meet egress capacity requirements.</u>	<u>No</u>	<u>P^a</u>	<u>P</u>	<u>P</u>
	<u>Yes</u>	<u>P^a</u>	<u>P</u>	<u>P</u>

P - Permitted; NP - Not permitted.

- a. Not permitted on corridor doors in Group I-2 occupancies where corridor doors are required to be positive latching.
- b. Permitted where both doors are self-closing or automatic-closing, and are provided with a coordinator that causes the inactive leaf to be closed prior to the active leaf.

Commenter's Reason: This public comment proposes in 1010.2.1, revisions to combine Exception 2 with Exception 3. And revisions in 1010.2.1 and 1010.2.4 for consistent use of the proposed defined term "manual bolt".

This public comment also deletes and replaces proposed Table 1010.2.4 with a simpler table with minor revisions:

1. The left two columns of the originally proposed Table 1010.2.4 were combined into a single column to remove redundant text.
2. Also, where footnote "b" is used in the 2nd column from the right, the "P^b" was revised to "NP^b" for consistency with how footnote "a" is used in the table.
3. Editing of column and row headings for simplicity and better consistency with the proposed definitions and text.

During the committee action hearing, there was discussion that manual bolts (manual bolt locks) may not be permitted by the proposed revisions as they are currently permitted by the IBC (e.g. on a single door). An explanation of how the proposal permit manual bolts:

1. The proposal deletes, from 1010.2.5, the current prohibition of manually operated flush bolts and surface bolts, and inserts this prohibition with minor revisions in 1010.2.1 stating "*Manual bolt* locks are not permitted.
2. However, there are three (was four) exceptions to 1010.2.1.
 - a. Exception 2 (was Exception 3), for individual dwelling units and sleeping units of Group R occupancies, sends the reader to Section 1010.2.4 Item 5.
 - b. Item 5 of 1010.2.4 permits installation of a night latch, dead bolt, or security chains on doors from individual dwelling units or sleeping units of Group R occupancies having an occupant load of 10 or less. This proposal, E43-21, adds "manual bolt" to this list of hardware items (see the original E43-21 proposal as Item 5 is not proposed for revisions with this public comment).
 - c. The net effect is manual bolts would be permitted on doors from individual dwelling units or sleeping units of Group R occupancies with an

occupant load of 10 or less in the same applications where a dead bolt or night latch have been permitted.

d. Note the 2021 IBC in 1010.2.5 permits manually operated flush bolts or surface bolts on doors not required for egress in individual dwelling units or sleeping units. The revisions in this proposal permit manual bolts on doors – not required, or required, for egress – in individual dwelling units.

3. Note: The proposed definition for manual bolts indicates manual bolts can be either flush or surface mounted.

Also during the CAH, there was discussion about permitting / not permitting manual bolts, automatic flush bolts, and constant latching bolts on doors in the means of egress per proposed Table 1010.2.4. Perhaps an explanation of where the provisions in proposed Table 1010.2.4 came from may be helpful.

1. Item 4 in 1010.2.4 (revised in E43-21) permits manual bolts, automatic flush bolts, and constant latching bolts on the inactive leaf of a pair of doors in accordance with (proposed) Table 1010.2.4 provided the inactive leaf does not have a doorknob, panic hardware, or similar operating hardware.

a. Do note Item 4 applies only to the inactive leaf of a pair of doors.

2. Proposed Table 1010.2.4, in the title of the table and in the heading of the right three columns, identifies the permitted uses of manual bolts, automatic flush bolts, and constant latching bolts on the inactive leaf of a pair of doors.

3. In proposed Table 1010.2.4,

a. Starting with the right-hand column of Table 1010.2.4, constant latching bolts, which have automatic latching and manual retraction of the bolt or latch, are proposed to be permitted:

i. On the inactive leaf where that inactive leaf is not required for egress capacity in B, F, and S occupancy groups (see deleted Exception 4 of Section 1010.2.5).

ii. On the inactive leaf of group I-2 patient care room doors (see deleted Exception 5 of Section 1010.2.5).

iii. On the inactive leaf of storage and equipment room doors where the occupant load is served by the active leaf (see deleted Exception 2 of Section 1010.2.5 – constant latching bolts release manually similar to manual bolts).

b. Automatic flush bolts, which are installed on the inactive leaf have automatic extension and have automatic retraction of the bolt by action of the active leaf, are proposed to be permitted

i. On the inactive leaf of a pair of doors in B, F, and S occupancy groups where the doors are not required to comply with IBC Section 716 for opening protectives (see deleted Exception 4 of Section 1010.2.5).

ii. For doors required to comply with 716 which are required elsewhere in the IBC to be positive latching, automatic flush bolts are not permitted on the inactive leaf unless the pair of doors meet the requirements of proposed footnote “b” requiring a coordinator to ensure the inactive leaf is closed prior to the active leaf.

iii. On doors to I-2 patient care rooms where the inactive leaf is not needed for egress capacity (see deleted Exception 4 of Section 1010.2.5).

iv. For storage or equipment rooms, wherever a manual bolt would be permitted on the inactive leaf, an automatic flush bolt should also be permitted (see deleted Exception 2 of Section 1010.2.5).

c. Surface or flush mounted manual bolts are permitted

i. On the inactive leaf in B, F, and S occupancy groups only where the inactive leaf is not needed for egress capacity (see deleted Exception 4 of Section 1010.2.5).

ii. On the inactive leaf of storage and equipment room doors where the occupant load is served by the active leaf (see deleted Exception 2 of Section 1010.2.5).

Cost Impact: The net effect of the public comment and code change proposal will not increase or decrease the cost of construction. This proposal provides updated guidance on “shall be permitted” locking hardware, and is an attempt to bring clarity to the requirements in the IBC.

