DENVER AMENDMENT PROPOSAL FORM
FOR CPD INTERNAL PROPOSALS TO THE 2016 DENVER BUILDING CODE AMENDMENTS AND THE 2018 INTERNATIONAL CODES

2018 CODE DEVELOPMENT CYCLE

1) Name: Allen Yanong / combined by Glenn Mathewson Date: 3/26/2019

2) Proposals should be drafted in Word with the only formatting that is needed being **bolding**, **strikeout** AND **underlining**. Please do not provide additional formatting such as tabs, columns, etc.
   
   Please use a separate form for each proposal submitted.

   Is separate graphic file provided? ☐ Yes ☒ No

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Code Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBC-IBC</td>
<td>Denver Building Code–IBC base</td>
</tr>
<tr>
<td>DBC-IEBC</td>
<td>Denver Building Code–IEBC base</td>
</tr>
<tr>
<td>DBC- xxx</td>
<td>Denver Building Code– xxx code base</td>
</tr>
<tr>
<td>IBC</td>
<td>International Building Code</td>
</tr>
<tr>
<td>IECC</td>
<td>International Energy Conservation Code</td>
</tr>
<tr>
<td>IPC</td>
<td>International Plumbing Code</td>
</tr>
<tr>
<td>IFC</td>
<td>International Fire Code</td>
</tr>
<tr>
<td>IER</td>
<td>International Existing Building Code</td>
</tr>
<tr>
<td>IRC</td>
<td>International Residential Code</td>
</tr>
<tr>
<td>IFGC</td>
<td>International Fuel Gas Code</td>
</tr>
<tr>
<td>IMC</td>
<td>International Mechanical Code</td>
</tr>
</tbody>
</table>

AMENDMENT PROPOSAL

Please provide all of the following items in your amendment proposal.

**Code Sections/Tables/ Figures Proposed for Revision:**

- DBC-IBC APPENDIX Q, SECTION Q107 SECURING EXIT STAIRWAY DOORS
- DBC-IBC Section 1010.1.9.11
- DBC-IBC 403.5.3
- DBC-IBC 1023.9.2 & 1023.9.3 (new/relocated)

**Proposal:**

Delete Denver amendment without substitution

SECTION 1010
DOORS, GATES AND TURNSTILES

Section 1010.1.9.11: Stairway doors is amended by deleting the Exceptions 2 through 5 in their entirety and replacing them with the following:

Exception: Stairway doors may be locked in accordance with IBC Appendix Q, Access Control Systems.

Delete Denver amendment without substitution (note for clarity of review: highlighted sections will be retained and published in new Denver Policy or are provided in new amendments in this proposal)

SECTION Q107
SECURING EXIT STAIRWAY DOORS

Q-107.1 Requirements for access control. All doors into exit stairways shall be capable of being opened from both sides without the use of a key or special knowledge or effort unless otherwise permitted by the provisions of Section Q-107.
4. Phone/communications system. An emergency telephone or other approved two-way communication device shall be installed in the stairway and mounted at a height to comply with the requirements of ICC A117.1 (2009) Section 308. The location shall be approved.

5. After hours locks. Locking devices that are activated after normal business hours or during other timed periods and restrict access into the building shall be installed.

Q 107.2.1 Exit stairway door general hardware requirements. All doors into exit stairways shall have hardware that complies with the provisions of Section Q107.2.1.1

Q 107.2.1.1 Fire rating and latching requirements of door hardware. All doors into exit stairways shall be fire rated assemblies, as required by IBC Section 1022. In order to maintain the fire rating of the door assembly, all hardware installed on exit stairway doors shall meet the following criteria:

1. Latching Requirements. The door shall remain latched at all times that the door is in a closed position as required by IBC Section 216.5.9.1. Electric locks or strikes that un latch the door upon activation of the fire alarm system or loss of power shall not be approved.

2. Hardware Requirements. All hardware shall be listed for use on fire rated door assemblies. The hardware shall be listed for an hourly rating equal to or greater than the rating of the door assembly. Any field or other modification of rated doors and frames is prohibited unless approved in writing by the agency that labels the door and frame assembly. Doors that are modified to accommodate hardware without the approval of the labeling agency are not approved and shall be replaced with properly labeled doors manufactured to accommodate the hardware.

Q 107.2.2 Exit stairway doors at the level of exit discharge. Doors providing the path of egress out of the exit stairway at the level of exit discharge shall not be locked from the exit stairway side at any time.

Exception: Electromagnetic Locks and Delayed Egress Locks are permitted when used in accordance with Sections Q104 or Q105 of this appendix. Exterior exit stairway doors at the level of exit discharge level may be locked to prevent access into the exit stairway from the exterior side.

Interior exit stairway doors at the level of exit discharge that are not intended for exit discharge from the exit stairway shall comply with all of the provisions of Section Q107.2.4.

Q 107.2.3 Doors into exit stairways at levels other than the level of exit discharge. Doors that are part of the means of egress into exit stairways shall not be locked to prevent or restrict access into the exit stairway at any time. Doors shall be operable without the use of a key or any special knowledge or effort. The door shall be capable of being opened with one operation only. The following types of locking devices are prohibited on the exit side of doors into exit stairways:

1. Key operated mechanical locks. Mechanical locks requiring a key, combination, or other special knowledge to open the door.

2. Combination of mechanical and electrical locks. Combinations of mechanical door hardware and/or electric locks which require more than one operation to open the door.

3. Electric locks. Electric locking devices which are unlocked by use of a key, card reader, key pad, pressure sensitive mat, push button switch or other similar method.

4. Electric strikers. Fail-safe electric strikes are prohibited on doors into exit stairways. The latch point on these doors must be maintained and a fail-safe electric strike does not maintain the latch point when power is lost to the strike. Fail-secure electric strikes that are not listed for use on a fire rated door assembly are also prohibited on doors into exit stairways.

5. After hours locks. Locking devices that are activated after normal business hours or during other timed periods and restrict access into the exit stairway.

Q 107.2.4 Doors out of exit stairways at levels other than the level of exit discharge. Access control systems complying with all of the specific provisions of Section Q107.2.4 and the general provisions of Section Q107.2 may restrict access out of exit stairways on levels other than the level of exit discharge (i.e., may be secured from the exit stairway side).

Q 107.2.4.1 High rise buildings. Stairway doors other than the exit discharge doors shall be permitted to be locked from the stairway side.

Q 107.2.4.1.1 New door locks that restrict access out of exit stairways. All new lock installations in high rise buildings, which restrict access out of an exit stairway, shall satisfy the following requirements:

1. Electric locks. All new locks shall be electrically modified locksets which shall simultaneously unlock, but not unlatch, upon a fire alarm or a loss of power or activation of Electric Locks – Master Switch. The electrically modified lockset shall be wired to all three of these monitor/power control points. These locks shall not be connected to an emergency power source that would keep the door locked upon loss of normal building power.

2. Mechanical locks. Conventional keyed, combination, or other mechanical locks shall not be installed in new lock installations.

3. Fifth floor rule. Where doors are locked for more than five consecutive floors, a telephone or other approved two-way communication system shall be provided in the stairway. The travel distance between each phone or communication system shall not exceed five floors as required by IBC Section 403.5.3.1.

4. Phone/communications system. An emergency telephone or other approved two-way communication device shall be installed in the stair landing, and mounted at a height to comply with the requirements of ICC A117.1 (2009) Section 308. The location shall be approved.
by the FPB. The system/device shall transmit to an approved constantly attended station or location within the building as approved by the FPB. Upon activation, the communications device shall automatically transmit a location identification message to the monitoring service.

Signage. All locked exit stairway doors shall have the applicable signage required by Section Q107.2.1.1.1 and IBC Section 1023.9 and comply with ICC A117.1 (2009) Sections 703 and 704. Signage shall be provided as follows:

a. All doors that are locked for more than 5 consecutive floors shall have a sign that reads: THIS DOOR IS LOCKED. EMERGENCY PHONES ARE LOCATED ON FLOORS _____ AND _____.

b. All doors that are locked for 5 consecutive floors or less shall have a sign that reads: THIS DOOR IS LOCKED. FOR THE NEXT UNLOCKED DOOR GO DOWN TO FLOOR __ OR UP TO FLOOR ____.

c. All emergency phones in exit stairways shall have a sign that reads: EMERGENCY PHONE. The sign shall also provide the address of the building and describe the floor and stair location of the phone.

Q 107.2.4.1.2 Existing door locks that restrict access out of exit stairways. Existing locking systems in high-rise buildings that prevent access out of exit stairways shall satisfy all of the following requirements in order to remain in service:

1. Existing lock definition. An existing lock is a lock that was legally installed with a building permit prior to September 21, 1990, the effective date of Policy P-25 “Securing of Exit Doors into Exit Enclosures”. The lock shall also comply with all of the requirements of the building code in effect at the time it was installed.

2. Master keys. Locks must be key operable. Four sets of master keys to operate the locks shall be available for Fire Department use in a location approved by the FPB.

3. Fifth floor rule. Doors shall not be locked for more than five consecutive floors with keyed mechanical locks. Where keyed locks are in place for more than five consecutive floors, at least one shall be replaced by an electric lock such that the keyed locks do not occur for more than five consecutive floors.

4. Existing mechanical combination locks. Existing mechanical combination locks shall be removed and replaced with complying electric locks.

5. Existing electric locks. Existing electric locks on the exit stairway side may remain in service if they comply with all of the requirements listed in Section Q107.2.

Q 107.2.4.2 Non-high-rise buildings. Doors may be locked to prevent access out of the exit stairway on all levels except the level of exit discharge in accordance with sections Q107.2.4.2.1 and 107.2.4.2.2.

Q 107.2.4.2.1 Non-high-rise buildings. Doors into exit stairways may be locked with any type of mechanical lock or listed electrical lock from the exit stairway side to prevent access out of the exit stairway if all of the following conditions are satisfied:

1. The locking hardware does not prevent mechanical free egress into the exit stairway at exit doors.

2. The door is not a part of the egress path from the exit stairway at a discharge level.

3. The locking hardware complies with all of the requirements of Section Q107.2.1.1.

4. Electric strikes used as part of the locking system shall be fail-secure.

The provisions of this section may be applied to locking applications in both new and existing buildings.

Q 107.2.4.2.2 Non-high-rise buildings. Exit stairways may be locked to prevent access out of the exit stairway in non-high-rise buildings more than four stories in height provided the locking system complies with all of the general provisions of Section Q107.2 and the specific provisions for high-rise buildings in Section Q107.2.4.1.

Revise Denver amendment as follows:

SECTION 403
HIGH-RISE BUILDINGS

[F] Section 403.5.3 Stairway door operation is replaced with the following:

[F] 403.5.3 Stairway door operation. Locking of stairway doors shall be in accordance with IBCA appendix Q-Access control systems. Stairway doors other than the exit discharge doors shall be permitted to be locked from the stairway side. Stairway doors that are locked from the stairway side shall unlock simultaneously without unlatching upon a fire alarm or loss of power or a signal from the fire command center.

Add new text as follows:

SECTION 1023
INTERIOR EXIT STAIRWAYS AND RAMPS
1023.9.2 Door operation identification. At locked stairway doors, identification required by Section 1023.9 shall also identify the door operation as follows:

a. All doors that are locked for more than 5 consecutive floors shall have a sign that reads: **THIS DOOR IS LOCKED. EMERGENCY PHONES ARE LOCATED ON FLOORS AND**

b. All doors that are locked for 5 consecutive floors or less shall have a sign that reads: **THIS DOOR IS LOCKED, FOR THE NEXT UNLOCKED DOOR GO DOWN TO FLOOR OR UP TO FLOOR**.

1023.9.3 Emergency phone identification. Emergency phones in exit stairways shall have a sign stating: “Emergency Phone,” the building address and the floor and stair location of the phone. Signage shall be in accordance with Section 1023.9.1 and ICC A117.1 Sections 703 and 704.

Supporting Information:

SECTION Q107 SECURING EXIT STAIRWAY DOORS (and subsections). The 2018 IBC Sections 403.5.4, 1010.1.9.9, 1010.1.9.10 and 1010.1.9.12 address all the requirements of Section Q107 and it is proposed that this section be deleted.

Q107.1 Requirements for access control. With the proposed elimination of Appendix Q, requirements for access control at stairway doors will be regulated by the 2018 IBC. This amendment can be deleted.

Q107.2 Securing exit stairway doors. With the proposed elimination of Appendix Q, requirements for access control at stairway doors will be regulated by the 2018 IBC. 2018 IBC Section 1010.1.9.12 states that interior stairway means of egress doors shall be openable from both sides without use of a key or special knowledge. This implies mechanical free egress. Exception (1) of this section states that stairway discharge doors shall be openable from egress side and shall only be locked from the opposite side. The 2018 IBC provides regulations for all types of access control. This amendment can be deleted.

Q107.2.1 Exit stairway door general hardware requirements. The 2018 IBC regulated fire door hardware in the following sections: 716.2.6, 1010.1.9.12 and specifically for high-rise, 403.5.3. This amendment can be deleted.

Q107.2.1.1 Fire rating and latching requirements of door hardware. The reference to IBC 1022 is incorrect. Fire rated-assemblies are located in 2018 IBC 716.2. See the criteria below for additional information. This amendment can be deleted.

1. Latching requirements. Latching requirements for fire doors are in 2018 IBC 716.2.6.2. This amendment can be deleted.

2. Hardware requirements. Per 2018 IBC Chapter 2, the definition of fire rated door assembly states any combination of a fire door, frame hardware and other accessories that together provide a specific degree of fire protection to the opening. A fire door assembly is required per 2018 IBC Table 716.1(2) for interior exit stairways. This amendment can be deleted.

Q107.2.2 Door hardware to be accessible. 2018 IBC 1009.3 outlines the requirements for stairways as accessible means of egress. 2018 IBC 1010.1.9.1 provides requirements for door hardware on doors when they are required to be accessible. This amendment can be deleted.

Q107.2.2 Exit stairway doors at the level of exit discharge & Exception. 2018 IBC 1010.1.9.12, exception (1) clearly states that stairway discharge doors shall be openable from the egress side and shall only be locked from the opposite side. The exception to Q107.2.2 This amendment can be deleted.

Q107.2.3 Doors into exit stairways at levels other than the level of exit discharge. 2018 IBC 1010.1.9.12 clearly states that interior stairway means of egress doors shall be openable from both sides without use of a key or special knowledge or effort. The (5) types of locks listed below would not be compliant with IBC 1010.1.9.12 (see descriptions below) and thus this amendment can be deleted.

1. Key operated mechanical locks. These would require special knowledge.

2. Combination of mechanical and electrical locks. These would require special knowledge or effort.

3. Electric locks. Key, card reader, key pad, pressure mat, push button switch or other similar method would require special knowledge or effort.

4. Electric strikes. Fail-safe strikes do not provide the required latching per 2018 IBC 716.2.6.2. Hardware requirements can be located in 2018 IBC Section 716.1(2) and Chapter 2 definitions.

5. After hours locks. These types of locks would require special knowledge as to when they are not active.

Q107.2.4 Doors out of exit stairways at levels other than the level of exit discharge. 2018 IBC 1010.1.9.12 lists exceptions where doors may be locked at exit stairways and specifically addresses the stairway discharge and high-rise conditions (exceptions 1 and 2).

Q107.2.4.1 High rise buildings. Per 2018 IBC 1010.1.9.12, this section does not apply to doors arranged in accordance with Section 403.5.3. That section is located in the special provisions for stairway doors in high-rise. This amendment can be deleted unless noted otherwise below.

Q107.2.4.1.1 New door locks that restrict access out of exit stairways. See above comment to Q107.2.4.
1. **Electric locks.** 2018 IBC 403.5.3 states that stairway doors need to unlock simultaneously without unlatching. A proposed code amendment to this section is to add activation upon fire alarm or loss of power. *Fire command center* will replace “Master Switch”.

2. **Mechanical locks.** 2018 IBC 1010.1.9 states egress doors shall be readily openable from the egress side without the use of a key or special knowledge. From the stairway side, 2018 IBC 403.5.3 would apply (see above comment to electric locks).

3. **Fifth floor rule.** Fifth floor rule is addressed by 403.5.3.1

4. **Phone communications system.** Phone communication system is address in 2018 IBC 405.3.1

5. **Signage.** Signage requirements will be addressed with new amendment proposal 2018 IBC 1023.9.2 & 1023.9.3 (see specific code amendment proposal)

**Q 107.2.4.1.2 Existing door locks that restrict access out of exit stairways.** Since the 2018 IBC does not address existing conditions, it is recommended that a policy be created that addresses existing access control systems, specifically for high-rise buildings. This amendment can be deleted and a new policy is proposed.

1. Existing lock definition.
2. Master keys.
3. Fifth floor rule.
4. Existing mechanical combination locks.
5. Existing electric locks.

**Q107.2.4.2 Non-high rise buildings.** 2018 IBC 1010.1.9.12 no longer makes the distinction between whether a building is less than five stories (Q107.2.4.2.1) or greater than four stories (Q107.2.4.2.2). Buildings other than high-rise will need to comply with exceptions (1) and (3) of this section. This amendment can be deleted.

**Q107.2.4.2.1 Non-high rise buildings less than five stories.** See above (Q107.2.4.2). This amendment can be deleted.

**Q107.2.4.2.2 Non-high rise buildings greater than four stories.** See above (Q107.2.4.2). This amendment can be deleted.

**Note:** The following items are required to be included:

**Purpose:** The proponent shall clearly state the purpose of the proposed amendment to physical, environmental and customary characteristics that are specific to the City and County of Denver (e.g., clarify the Code; revise outdated material; substitute new or revised material for physical, environmental and customary characteristics; add new requirements to the Code; delete current requirements, etc.)

**Reasons:** The proponent shall justify changing the current Code provisions, stating why the proposal is necessary to reflect physical, environmental and customary characteristics that are specific to the City and County of Denver. Proposals that add or delete requirements shall be supported by a logical explanation which clearly shows why the current does not reflect physical, environmental and customary characteristics that are specific to the City and County of Denver and explains how such proposals will improve the Code.

**Substantiation:** The proponent shall substantiate the proposed amendment based on technical information and substantiation. Substantiation provided which is reviewed and determined as not germane to the technical issues addressed in the proposed amendment shall be identified as such.

**Bibliography** (as needed): The proponent shall submit a bibliography when substantiating material is associated with the amendment proposal. The proponent shall make the substantiating materials available for review.

**Referenced Standards:**

Click or tap here to enter text.

List any new referenced standards that are proposed to be referenced in the code.

**Impact:**

None

**Note:** The proponent shall discuss the impact of the proposed amendment and indicate one of the following for each point below regarding the amendment proposal:

- The effect of the amendment proposal on the cost of construction; ☐ Increase ☐ Reduce ☒ No Effect
- The effect of the amendment proposal on the cost of design; ☒ Increase ☐ Reduce ☐ No Effect
- Is the amendment proposal more- or less-restrictive than the I-Codes; ☐ More ☒ Less ☐ Same

**Departmental Impact:**

None
**Note:** The proponent shall discuss the impact of the proposed amendment and indicate one of the following for each point below regarding the amendment proposal:

- The effect of the amendment proposal on the cost of review;
- The effect of the amendment proposal on the cost of enforcement/inspection;

<table>
<thead>
<tr>
<th>Effect</th>
<th>Increase</th>
<th>Reduce</th>
<th>No Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review</td>
<td>☐</td>
<td>☘</td>
<td>☒</td>
</tr>
<tr>
<td>Inspection</td>
<td>☐</td>
<td>☘</td>
<td>☒</td>
</tr>
</tbody>
</table>