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: J.D. Lanz
   Denver Fire Department
   Date: 3/28/2019

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>
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<tr>
<td>DBC- xxx</td>
<td>Denver Building Code– xxx code base</td>
<td>IMC</td>
<td>International Mechanical Code</td>
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AMENDMENT PROPOSAL

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

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

Replace section 505.1.
Proposal:

Add to the current amendment

Section 907.6.4.1 Annunciator panels is replaced as follows:

907.6.4.1 Annunciator panels. Annunciator panels shall be point-lit graphic or computer graphic or a directory LED point display type as approved by the fire code official. Upon initiation of an alarm, supervisory or trouble condition the panel shall record the status. Alarms shall “lock-in” until the fire alarm system is reset with a dedicated reset switch located at the main fire alarm control panel. Annunciation lights shall be red for “Alarm” and yellow for “Trouble” and “Supervisory” signals. Each signal type shall be distinctly identified.

Exception: Where a monitored building fire alarm control unit is not provided, annunciator panels are not required for a dedicated function elevator recall control and supervisory control unit or sprinkler waterflow and supervisory control unit.

907.6.4.1.1 Directory annunciator. A directory annunciator shall be provided as required. Location shall be field approved. The annunciator shall be provided with individual alarm indications in accordance with Section 907.6.4 for each zone. Indicators shall be of sufficient size and intensity to be visible in normal lighting.

907.6.4.1.1.1 Building plans. Scaled floor plans shall be permanently mounted adjacent to directory type annunciator panels. Plans shall be of durable construction, easily readable in normal lighting, protected by a smooth, transparent, plastic surface and shall include every building level including mezzanines and roofs. Plan content shall comply with Appendix N.

907.6.4.1.2 Point-lit graphic annunciator. A graphic annunciator shall be provided as required in Sections 907.6.4.1.2.1 through 907.6.4.1.2.3.

907.6.4.1.2.1 When required. A point-lit graphic annunciator is required for the following: underground buildings, high-rise buildings, buildings with a smoke control system in accordance with Section 909 and where required for a pre-action fire sprinkler or clean agent extinguishing system in accordance with Section 907.6.7.

907.6.4.1.2.2 Location in building. Location of annunciators shall be field approved. Locations depicted on reviewed drawings are not permitted until field verification is secured.

907.6.4.1.2.3 Graphics. The annunciator shall consist of building plans in accordance with Appendix N, with the addition of discrete LED indications for each alarm and supervisory initiating device. The annunciator shall be provided with a momentary push-button “Lamp Test.” Separate indications for “Trouble” and “Supervisory” conditions shall be provided.

Section 907.6.4.1.3 Computer graphic display is added as follows:

907.6.4.1.3 Computer graphic display. Computer graphic displays shall be permitted for individual system designs. Systems shall be fully compliant with UL 864. Systems shall contain a full color primary and secondary display. Demonstration of the specific equipment to be installed with the actual operating software for the proposed system shall be presented to the fire code official. Operator interface to the graphic shall be based on:
1. Ease of use. Primary operator interface shall be standard 2-button mouse driven. Optional secondary interfaces may be provided.

2. Adequacy of display for operational purposes. Displays shall be capable of presenting the entire floor plate with all devices and device status shown on an initial alarm screen. On any alarm indication, the floor plate in alarm shall come up on the screen with all devices shown and the device in alarm highlighted. Display segmentation from this initial view shall be possible for expanding the view of the area of alarm incidence. Displays shall be contrasting black lines and lettering on a white background.

3. Flexibility of system for upgrade.


5. Plain English report generation of events, histories, maintenance schedules, device status and settings and user access.

6. UL-864 listed event-driven primary display. Secondary display(s) as approved by the fire code official. All displays shall be specified for 24-hour, 7-day continuous operation. A 3-year warranty is recommended.

7. Secure access.

8. Fire alarm device icons shall be in accordance with NFPA 170 or graphic icons as approved by the fire code official.

Building plans in accordance with Section 907.6.4.1.1.1 shall be provided and shall be located as approved by the fire code official.

Section 907.6.4.1.4 LED type Graphic Map Annunciator Monuments is added as follows:

All entrances to communities, apartments, townhomes, condominium, and other grouped structures which are provided with a campus style fire alarm system shall provide a LED type Graphic Map Annunciator Monuments (GMAM), at ALL entrances, to identify the locations of the alarms and building. The GMAM shall be designed for typical exterior environmental conditions including rain, snow, heat, wind, etc. The GMAM shall always be lit whether the light is from the ambient environment and/or an independent light source. All circuits entering the GMAM enclosure shall be provided with surge protection. All GMAM shall be part of the recurring fire alarm system maintenance, testing, and inspection program. In addition to the above, GMAM shall comply with items 1 through 12 below:

1. GMAM shall be located at each entrance into the property.
2. GMAM shall be approved by the fire code official for location and compliance to the intended function.
3. GMAM with electronic identification means shall be provided with surge suppression on all wires entering/exiting the enclosure.
4. GMAM shall be kept out of the right of way to avoid annual encumbrance permits from Public Works.
5. GMAM shall provide a red LED to annunciate each building in alarm.
6. GMAM shall be designed for typical exterior environmental conditions including rain, snow, heat, wind, etc.
7. GMAM shall always be lit whether the light is from the ambient environment and/or an independent light source.
8. GMAM shall maintain the visual clarity of the plastic/lexan cover as scratches, markings, fading and other environmental conditions which deteriorate or reduce the intended legibility of the GMAM.
9. GMAM shall be part of the recurring fire alarm system maintenance, testing, and inspection program.
10. The complex name and address shall be located at the top of the GMAM with a minimum letter height of 1” with contrasting backgrounds. The streets shall be identified with minimum letter heights of 1”. It is recognized that all lettering and backgrounds may not contrast very well in certain ambient conditions and therefore it shall be the responsibility of the property owner to meet the intent of legibility during an emergency response.
11. GMAM shall be sized so that the building numbers are a minimum of 1 ¼” in height with contrasting backgrounds. It is recognized that all lettering and backgrounds may not contrast very well in certain conditions and therefore shall be the responsibility of the property owner to meet the intent of legibility during emergency response.
12. It is recognized that the requirements of the GMAM may require multiple drawings to accurately represent the complex at each GMAM location and therefore shall be adjusted to comply with the requirements of 907.6.4.1.4.

**Exception:** Properties with multiple buildings which are provided with their own AES radio and dispatch an alarm condition for that specific building address shall not be required to provide an LED GMAM to identify specific buildings. Only a GMAM shall be required and shall comply with the requirements identified in 907.6.4.1.4. If a property is originally approved with this exception and removes radios or consolidates building shall then be required to provide LED GMAM according to 907.6.4.1.4.

Section 907.6.4.1.5 Graphic Map Annunciator Monuments is added as follows:

Properties with multiple buildings and provided each building with their own AES radio and dispatch an alarm condition to that specific building address shall not be required to provide a LED GMAM. Only a GMAM shall be required at all entrances according to 907.6.4.1.5. The GMAM shall be designed for typical exterior environmental conditions including rain, snow, heat, wind, etc. The GMAM shall always be lit whether the light is from the ambient environment and/or an independent light source. All GMAM shall be part of the recurring fire alarm system maintenance, testing, and inspection program. In addition to the above, GMAM shall comply with items 1 through 10 below:

1. GMAM shall be located at each entrance into the property.
2. GMAM shall be approved by the fire code official for location and compliance to the intended function.
3. GMAM shall be kept out of the right of way to avoid annual encumbrance permits from Public Works.
4. GMAM shall be designed for typical exterior environmental conditions including rain, snow, heat, wind, etc.
5. GMAM shall always be lit whether the light is from the ambient environment and/or an independent light source.
6. GMAM shall maintain the visual clarity of the plastic/lexan cover as scratches, markings, fading and other environmental conditions which deteriorate or reduce the intended legibility of the GMAM.
7. GMAM shall be part of the recurring fire alarm system maintenance, testing, and inspection program.
8. The complex name and address shall be located at the top of the GMAM with a minimum letter height of 1” with contrasting backgrounds. The streets shall be identified with minimum letter heights of 1”. It is recognized that all lettering and backgrounds may not contrast very well in certain ambient conditions and therefore it shall be the responsibility of the property owner to meet the intent of legibility during an emergency response.

9. GMAM shall be sized so that the building numbers are a minimum of 1 ¼” in height with contrasting backgrounds. It is recognized that all lettering and backgrounds may not contrast very well in certain conditions and therefore shall be the responsibility of the property owner to meet the intent of legibility during emergency response.

10. It is recognized that the requirements of the GMAM may require multiple drawings to accurately represent the complex at each GMAM location and therefore shall be adjusted to comply with the requirements of 907.6.4.1.5.

Note: Show the proposal using strikeout, underline format. At the beginning of each section, one of the following instruction lines are also needed:

• Revise as follows
• Add new text as follows
• Delete and substitute as follows
• Delete without substitution
## Supporting Information:

Carry over Denver Fire 2015 IFCA amendments as adopted by policy in October 2017. This provides addition and specific language.

**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:

None

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

## Impact:

It has no effect. Same amendments from 2015 IFCA.

**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:

Click or tap here to enter text.

**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; [☐] Increase [☐] Reduce [☒] No Effect
- The effect of the amendment proposal on the cost of enforcement/inspection; [☐] Increase [☐] Reduce [☒] No Effect