Code Amendment Proposal Form

For public amendments proposed to the 2018 editions of the International Codes

Instructions: Upload this form and all accompanying documentation at www.denvergov.org/BuildingCode. If you are submitting your proposal on a separate sheet, make sure it includes all information requested below.

All proposals must be received by April 26, 2019.

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CONTACT INFORMATION

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Organization: Structural Engineers Association of Colorado – Denver Building Department Liaison Committee

I, David P. Renn, hereby grant and assign to City and County of Denver all rights in copyright I may have in any authorship contributions I make to City and County of Denver in connection with this proposal. I understand that I will have no rights in any City and County of Denver publications that use such contributions in the form submitted by me or another similar form and certify that such contributions are not protected by the copyright of any other person or entity.

Signature: David P. Renn

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AMENDMENT PROPOSAL

Please use a separate form for each proposal.

1) Code(s) associated with this proposal. Please use acronym: DBC-IBC

If you submitted a separate coordination change to another code, please indicate which code:

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Code Name</th>
<th>Acronym</th>
<th>Code Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBC-xxxx</td>
<td>Denver Building Code–xxxx (code) amendments (e.g., DBC-IBC, DBC-IEBC)</td>
<td>IFGC</td>
<td>International Fuel Gas Code</td>
</tr>
<tr>
<td>IEBC</td>
<td>International Existing Building Code</td>
<td>IMC</td>
<td>International Mechanical Code</td>
</tr>
<tr>
<td>IECC</td>
<td>International Energy Conservation Code</td>
<td>IPC</td>
<td>International Plumbing Code</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IFC</td>
<td>International Residential Code</td>
</tr>
</tbody>
</table>

2) Please check here if a separate graphic file is provided: ☐

Graphics may also be embedded within your proposal below.

3) Use this template to submit your proposal or attach a separate file, but please include all items requested below in your proposal. The only formatting needed is BOLDING, STRIKEOUT AND UNDERLINING. Please do not provide additional formatting such as tabs, columns, etc., as this will be done by CPD.

<table>
<thead>
<tr>
<th>Code Sections/Tables/Figures Proposed for Revision:</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBC-IBC 1810.3.5.2.2</td>
</tr>
</tbody>
</table>

Note: If the proposal is for a new section, indicate (new).

Proposal:

Revise as follows:
Section 1810.3.5.2.2 Uncased is replaced in its entirety with the following:

1810.3.5.2.2 Uncased. Cast-in-place or grouted-in-place deep foundation elements without a permanent casing shall have a specified diameter of not less than 12 inches (305 mm). The element length shall not exceed 30 times the average specified diameter.

Exception: The specified diameter of the element is permitted to be less than 12 inches and/or the length of the element is permitted to exceed 30 times the specified diameter, provided the design and installation of the deep foundations are under the direct supervision of a registered design professional knowledgeable in the field of soil mechanics and deep foundations. The registered design professional shall submit a report to the building official stating that the elements were installed in compliance with the approved construction documents.

Note: Show the proposal using strikeout, underline format. At the start of each section, give one of the following instructions:
- Revise as follows:
- Add new text as follows:
- Delete and substitute as follows:
- Delete without substitution:

Supporting Information:

Purpose: The purpose of this proposal is to revise Denver’s current amendment for uncased deep foundations to match terminology used in the 2018 IBC. The technical content of Denver’s current amendment reflects customary design and construction practices in Denver and is not proposed to be changed.

Reasons and Substantiation: The 2018 IBC revised this section by changing “diameter” to “specified diameter”, which is a clarification that is necessary to avoid this term from being interpreted as a nominal diameter, an as-built diameter, or something else. This change brings clarity and consistency to the application of requirements of this section. The 2018 IBC also added grouted-in-place deep foundations to this section to clarify that the same requirements apply to these types of foundations. There is no reason for Denver’s current amendment to be different from the IBC regarding these items, so this proposal brings Denver’s current amendment to be in line with the IBC.

The technical content of Denver’s current amendment varies from the IBC in that it revises the exception to allow the diameter of a deep foundation to be less than the 12” minimum if the design and installation is under the direct supervision of a registered design professional knowledgeable in the field of soil mechanics and deep foundations. In Denver, it is a customary design and construction practice to use small diameter piers (say 10”) for lightly loaded piers such as those used to support decks. If properly designed following recommendations from a registered design professional, these piers perform adequately and there is no reason not to allow such a design in Denver. Accordingly, this proposal maintains the technical content of Denver’s current amendment.

Bibliography: None.

Note: This section MUST include these items:
- **Purpose**: 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. to reflect physical, environmental and customary characteristics that are specific to the City and County of Denver)
- **Reasons**: Clearly justify the change to 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 that clearly shows why the current code does not reflect physical, environmental and customary characteristics that are specific to the City and County of Denver and explains how such proposal will improve the code.
- **Substantiation**: 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**: Include a bibliography when substantiating material is associated with the amendment proposal. The proponent shall make the substantiating materials available for review.
**Referenced Standards:**

None.

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

**Impact:**

This proposal may reduce the cost of construction relative to the 2018 IBC due to smaller pier diameters being allowed but has no effect on the cost of design. This proposal is less restrictive than the I-codes since it allows smaller pier diameters.

**Note:** Discuss the impact of this proposal in this section AND indicate the impact of this amendment proposal for each of the following:

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

**Departmental Impact:** (To be filled out by CPD staff)

**Note:** CITY STAFF ONLY. Discuss the impact of this proposal in this section AND indicate the impact of this amendment proposal for each of the following:

- The effect of the proposal on the cost of review: ☐ Increase ☐ Reduce ☐ No Effect
- The effect of the proposal on the cost of enforcement/inspection: ☐ Increase ☐ Reduce ☐ No Effect