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.

CONTACT INFORMATION
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Organization: Structural Engineers Association of Colorado- Denver Building Department Liaison Committee

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Signature: Rodger Young, P.E.

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:

Acronym | Code Name
---|---
DBC-xxxx | Denver Building Code–xxxx (code) amendments (e.g., DBC-IBC, DBC-IEBC)
IBC | International Building Code
IEBC | International Existing Building Code
IECC | International Energy Conservation Code

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

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.

Code Sections/Tables/ Figures Proposed for Revision:

DBC-IBC 1609- Wind Loads- Section 1609.1.1.2
**Proposal:**

Delete without substitution:

**SECTION 1609**  
**WIND LOADS**  
**Section 1609.1.1.2**  
Reduction for air density is added:

1609.1.1.2 **Reduction for air density.** In calculating velocity pressures using Eq. 27.3-1, 28.3-1, 39.3-1 and 30.3-1 in ASCE 7, the numerical constant, 0.00256, may be reduced to account for air density. Any reduction shall comply with ASCE 7, Section C27.3.2, but in no case shall the reduction in the numerical constant exceed fifteen percent.

**Supporting Information:**

- **Purpose:** To remove language from the Denver Building and Fire Code Amendments that is no longer necessary as it is now in the body of the design standard.
- **Reasons:** The Code references the design standard ASCE-7-16 for use in evaluating wind loads on buildings and other structures. Previous editions of the standard referenced the reduction of wind loads based on reduced air density at elevations higher than sea level, in the appendix. The previous amendment was to clarify that should an engineer try to support an air density reduction by a method not universally recognized, then the reduction would be limited to a 15% reduction from the sea level density.

The standard now includes section 26.9 Ground Elevation Factor and Table 26.9.1, with footnotes, in the body of the standard and is the required methodology to be used by the designer. The inclusion of this section makes our previous amendment unnecessary.
- **Substantiation:** The formal inclusion of Section 26.9 and Table 26.9.1 is in general agreement with previously accepted design procedures. Reductions in loads due to air density are now approximately 2.4% greater than in the previous standard.
- **Bibliography:** ASCE-7-16 as published by the American Society of Civil Engineers/ Structural Engineering Institute.

**Referenced Standards:**

None

**Impact:**

Impact on construction in the City and County of Denver is negligible, with perhaps a very small decrease in cost for structural systems.

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