

# Code Amendment Proposal Form

For public amendments proposed to the 2021 editions of the International Codes



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

All proposals must be received by **July 23, 2021**.

## CONTACT INFORMATION

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**Signature:**

## AMENDMENT PROPOSAL

Please use a separate form for each proposal.

1) Code(s) associated with this proposal. Please use acronym: IECC

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

<u>Acronym</u>	<u>Code Name</u>	<u>Acronym</u>	<u>Code Name</u>
DBC-AP	Denver Building Code—Administrative Provisions	IFC	International Fire Code
DBC-xxxx	Denver Building Code—xxxx (code) amendments (e.g., DBC-IBC, DBC-IEBC)	IFGC	International Fuel Gas Code
IBC	International Building Code	IRC	International Residential Code
IEBC	International Existing Building Code	IMC	International Mechanical Code
IECC	International Energy Conservation Code	IPC	International Plumbing Code
		DGC	Denver Green Code

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.

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

NEW

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

### Proposal:

#### **SECTION R202 (IRC N1101.6)**

#### **GENERAL DEFINITIONS**

**BATCH SAMPLING.** A process whereby fewer than 100 percent of all dwellings or dwelling units, being constructed are inspected or tested, to demonstrate compliance.

Add new text as follows:

## **New Code Section**

**R401.2.2 (IRC N1101.13.2) Batch sampling.** Batch sampling shall be allowed for Group R2 buildings within the same project or community for the purpose of demonstrating compliance with sections R402.4 Air leakage and R403.3.3 Duct testing.

### **Exceptions:**

1. If batch sampling sections R402.4 air leakage and R403.3.3, duct leakage for other than Group R2 Buildings an approved sampling plan shall be included in the construction documents and approved by the code official.

**R401.2.2.1 (N1101.13.2.2.1) Sampling process.** Sampling shall use the following process:

1. After five (5) consecutive dwelling units are tested and demonstrate compliance with sections R402.4 Air leakage or R403.3.3 Duct testing without an incidence of failure, then only one (1) dwelling unit in subsequent groups of five (5) dwelling units is required to demonstrate compliance through testing.
2. The remaining four (4) units using batch sampling shall be considered in compliance when the one (1) tested sampled unit in the group of five (5) dwelling units has demonstrated compliance.
3. If the one (1) dwelling unit tested in the group of five (5) fails to demonstrate compliance then that unit must be retested until it demonstrates compliance, and three (3) consecutive dwelling units must also demonstrate compliance without incidence of failure before Batch Sampling is allowed to continue.

**Exception:** An approved sampling plan shall be used as an alternative to Section R401.2.2 and R401.2.2.1.

**R402.2.2.2 Reporting.** Batch Sampling reporting shall include the following:

1. At permitting, identify the number of sample sets that will use Batch Sampling.
2. At a time determined by the code official,
  - a. Report units that demonstrate compliance and all addresses or lot numbers in the batch that create the sample set of five dwellings units.
  - b. Report units that fail, and the date they are brought into compliance. Report the three or more additional units that are tested as a result of a failure, their test results, and the date the three consecutive units demonstrated compliance.
  - c. Submit other compliance documents or reporting as required by the code official.

## **Supporting Information:**

**Reason:** Currently, sampling is only addressed within the Simulated Performance Path section R405 of the IECC. It states, "Batch sampling of buildings to determine energy code compliance shall only be allowed for stacked multiple-family units." Narrowing the allowance for sampling to stacked multi-family units makes a lot of sense but narrowing sampling to only the Simulated Performance path does not. This proposal broadens the ability to sample dwelling units regardless of the pathway used to navigate the IECC.

In researching this proposal, it became evident that sampling means something different to the code compliance community than it does to the verification and builder program community. My discussions with the code compliance community indicated that they believe that sampling is only a tool that is used for lessening the requirement of blower door and duct leakage testing every permitted dwelling unit. The verification and builder program community, on the other hand, uses sampling to verify compliance of any requirement of compliance. Therefore, this proposal states that sampling used for anything other than blower door or duct leakage testing must have a sampling plan submitted at permitting that is approved by the authority having jurisdiction. In this way, it is ultimately up to the jurisdiction to determine their comfort level with the use of sampling for other code compliance feature and building types than diagnostic testing and stacked multi-family dwelling units.

Currently, the code does not define in any way what sampling means. The second half of this proposal defines the minimum requirements for sampling, which not only offers guidance to the jurisdiction for what to expect but also offers a baseline for which to assess the merits of submitted sampling plans which may be submitted to potentially broaden the scope of what could be sampled.

## **Referenced Standards:**

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

## **Impact:**

It is not clear how to assess the cost impact of a proposal like this as it depends completely on the quality of the installation of the code required item. If everything passes inspection the first time it can save money due to requiring fewer inspections, but if something fails it must be tested 3 more times and it could increase cost. The most important aspect of the proposal is not associated with cost it is associated with the ability to use sampling regardless of the compliance path chosen.

**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