



STATE OF HAWAII CODE AMENDMENT PROPOSAL
FORM FOR PUBLIC PROPOSALS TO
AMEND THE HAWAII STATE BUILDING CODES
 (Form Version 1.0 May 2010)

1)

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Department/Company:			
Submitted on Behalf of: engineers, architects, home builders, the building industry and unions			
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2) Indicate appropriate Model Code(s) and Sections to be amended in Hawaii by this Proposal -

CODE AMENDMENT PROPOSAL INSTRUCTIONS

Please provide all of the following items in your code change proposal.

REQUIRED INFORMATION:

The following items are required to be included in your proposal:

1. The proponent shall clearly state the purpose of the proposed code amendment (e.g., clarify the Code; revise outdated material; substitute new or revised material for current provision of the Code; add new Hawaii requirements to the adopted Code; delete current requirements, etc.). Any proposed revisions or additions to tables or figures must be included.
2. The proponent shall justify amending the current code provisions, stating why the proposal is superior to the current provisions of the Model Code. Proposals that add or delete requirements shall be supported by a logical explanation which clearly shows why the current Code provisions are inadequate or overly restrictive, specifies the shortcomings of the current Code provisions in Hawaii, and explains how such proposals will improve the Hawaii State Code.
3. The proponent shall substantiate the proposed code change based on technical information and substantiation. Substantiation provided which is determined as not germane to the technical issues addressed in the proposed code change shall be identified as such, and the proponent shall be notified that the proposal is considered an incomplete proposal and may be held until the deficiencies are corrected.
4. The proponent shall submit a bibliography of any substantiating material submitted with the code change proposal. The proponent shall make the substantiating materials available for review.
5. Per Hawaii Revised Statutes §107-26, the State Building Code Council shall not adopt provisions that relate to administrative, permitting, or enforcement and inspection procedures of each county. Any such code amendments shall be proposed instead to the individual county building officials during the code adoption process of each county.

PROPOSAL FORMATTING:

Show the proposal (see form on page 2) 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

The only formatting that is needed is **BOLDING, STRIKEOUT AND UNDERLINING**. Please do not provide additional formatting such as tabs, columns etc. **DO NOT USE THE TRACKING CHANGES OPTION, AUTOMATIC NUMBERING, OR ANY OTHER ADVANCED FORMATTING TOOLS PROVIDED BY WORD.**

<p><i>This Section For Official Use Only</i></p>	Date Considered by Building Official Sub-Committee:
	Sub-Committee Action on Proposal:
	Reason for Sub-Committee Action:
	Action by State Building Code Council:
	Date:

PUBLIC PROPOSAL FORM TO AMEND THE HAWAII STATE BUILDING CODES

HAWAII CODE AMENDMENT PROPOSAL FORM

(See instructions on page 1)

Model Code: IBC2018 - (IBC-09, IEBC, IECC, UFC, IMC, UPC, IRC, etc)

Code Sections/Tables/Figures/Standard Proposed for Revision; If the proposal is for a new section, indicate proposed section #.

Proponent: Name/Company/Representing: (DO NOT USE ACRONYMS FOR YOUR COMPANY OR ORGANIZATIONAL NAME)

Steven Baldrige, S.E., representing engineers, architects, home builders, the building industry and unions

Revise as follows (include deletion in strikeout, with modified text/proposed addition underlined, affected Code Section(s) in Bold):

W102 Windborne Debris Region definition

The definition of “Windborne Debris Region” in Section 202 is amended to read as follows:

“WIND-BORNE DEBRIS REGION. Areas in Hawaii where the basic design wind speed is **140** mph (63 m/s) or greater.

For Risk Category II buildings and structures, the wind-borne debris region shall be based on Fig. 1609.3 (5). For Risk Category III buildings and structures, the wind-borne debris region shall be based on Figure 1609.3(6). For Risk Category IV buildings, the windborne debris region shall be based on Fig. 1609.3 (7)”.

Reason:

Change triggering wind speed to 140 mph to be consistent with IBC 2006 Oahu requirements and actual risk (IBC 2015), See attached SB 50 testimony and State of Hawaii Guide to Wind Design.

1609.2 Protection of openings.

In *windborne debris regions*, glazing in buildings shall be impact resistant or protected with an impact-resistant covering meeting the requirements of an *approved* impact-resistant standard or ASTM E1996 and ASTM E1886 referenced herein as follows:

1. Glazed openings located within 30 feet (9144 mm) of grade shall meet the requirements of the large missile test of ASTM E1996.
2. Glazed openings located more than 30 feet (9144 mm) above grade shall meet the provisions of the small missile test of ASTM E1996.
3. Glazing in Risk Category II, III or IV buildings located over 60 feet (18 288 mm) above the ground shall be permitted to be unprotected.

Delete “and over 30 feet (9144 mm) above aggregate surface roofs located within 1,500 feet (458 m) of the building”

Reason:

Aggregate surface roofs are not used on Oahu. This is an old reference to stone ballasted roof systems that were common on the mainland. An example was damage caused in downtown Houston from

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Hurricane Alicia where the stone ballast on roofs of adjacent buildings became flying debris and took out the windows of the neighboring buildings.

5 Glazing in Risk Category I, II, and other Risk Category III buildings and structures are subject to the following exceptions:

Exceptions:

3. Risk Category II buildings shall be permitted to be designed with unprotected openings subject to the following requirements:
 - a) For each direction of wind, determination of enclosure classification shall be based on the assumption that all unprotected glazing on windward walls are openings while glazing on the remaining walls and roof are intact and are not assumed to be openings.
 - b) Partially enclosed and open occupancy R-3 buildings without wind-borne debris protection shall also include a residential safe room in accordance with Section 425, Hawaii residential safe room, or alternatively provide an equivalently sized room structurally protected by construction complying with Section 429.5.

See attached SB 50 testimony. This section as currently written creates many legal risks to the design and construction community. The decision to use this exemption should be acknowledged by the owner in writing and disclosed in any sale or condo documents. Furthermore, the code amendment could be updated to take some of the ambiguity out of these amendments to read;

3. Risk Category II buildings shall be permitted to be designed with unprotected openings subject to the following requirements:
 - a) **A catastrophic load case for structural component design only shall be determined by evaluating the buildings enclosure category based on the following:** For each direction of wind, determination of enclosure classification shall be based on the assumption that **50%** unprotected glazing on windward walls are openings while glazing on the remaining walls and roof are intact and are not assumed to be openings. **If it is determined that the building would be considered an enclosure classification of partially enclosed under this catastrophic scenario the following shall be designed for the higher partially enclosed wind pressures; exterior walls, all load bearing walls, floor framing, roof framing.**
 - b) Partially enclosed and open occupancy R-3 buildings without wind-borne debris protection shall also include a residential safe room in accordance with Section 425, Hawaii residential safe room, or alternatively provide an equivalently sized room structurally protected by construction complying with Section 429.5.

List of Supporting Information References (attached):

SB50 Testimony, ARA Hurricane Mitigation Study and excerpts, State of Hawaii Guide to Wind Design Excerpts

Proposals must be submitted using this form and are to be submitted electronically to Council at state.bcc@hawaii.gov or mailed to the Department of Accounting & General Services, Administrative Services Office, 1151 Punchbowl Street, Room 414, Honolulu, Hawaii 96813