



PUBLIC CODE CHANGE PROPOSAL FORM FOR PUBLIC PROPOSALS IN THE INTERNATIONAL CODES

2006/2007 CODE DEVELOPMENT CYCLE

CLOSING DATE: All Proposals Must Be Received by March 24, 2006

The 2006/2007 Code Development Hearings are scheduled for
September 20 to 30, 2006 in Orlando, FL

- 1) **Name:** William M. Connolly **Date:** March 21, 2006
Jurisdiction/Company: State of New Jersey, Department of Community Affairs, Division of Codes and Standards
Submitted on Behalf of: International Code Council Ad Hoc Committee on Terrorism Resistant Buildings
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- 2) ***Signature:** _____
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Signature for electronic submittal: When submitting proposals electronically, to complete the submittal process, print a copy of the ICC Electronic [Copyright Release](http://www.iccsafe.org) form found at www.iccsafe.org, fill in the requested information, send to ICC. One completed form is required. This must be done for each code change cycle and can be used for code changes and public comments.

- 3) Indicate appropriate International Code(s) associated with this Public Proposal – Please use Acronym: IBC
 If you have also submitted a separate coordination change to another I-Code, please indicate the code: _____
 (See section below for list of names and acronyms for the International Codes).

- 4) **Be sure to format your proposal and include all information as indicated on Page 2 of this form.**

- 5) Proposals should be sent to the following offices via regular mail or email. An e-mail submittal is preferred, including an electronic version, in either Wordperfect or Word. The only formatting that is needed is **BOLDING**, ~~STRIKEOUT~~ AND UNDERLINING. Please do not provide additional formatting such as tabs, columns, etc., as this will be done by ICC

Please use a separate form for each proposal submitted. Note: All code changes received will receive an acknowledgment.

Please check here if separate graphic file provided.

Graphic materials (Graphs, maps, drawings, charts, photographs, etc.) must be submitted as separate electronic files in .CDR,.IA,.TIF or .JPG format (300 DPI Minimum resolution; 600 DPI or more preferred) even though they may also be embedded in your Word or Wordperfect submittal.

Code	Send to:	Acronym	ICC Code Name
IBC	International Code Council	IBC	International Building Code
ICC EC	Chicago District Office	ICC EC	ICC Electrical Code–Administrative Provisions
IEBC	Attn: Diane Schoonover	IECC	International Energy Conservation Code
IFC	4051 West Flossmoor Road	IEBC	International Existing Building Code
IFGC	Country Club Hills, IL 60478-5795	IFC	International Fire Code
IPC	Fax: 708/799-0320	IFGC	International Fuel Gas Code
IPSDC	codechanges@iccsafe.org	IMC	International Mechanical Code
IPMC		ICC PC	ICC Performance Code
IWUIC		IPC	International Plumbing Code
IZC		IPSDC	International Private Sewage Disposal Code
		IPMC	International Property Maintenance Code
IECC	International Code Council	IRC	International Residential Code
ICC PC	Birmingham District Office	IWUIC	International Wildland-Urban Interface Code
IMC	Attn: Annette Sundberg	IZC	International Zoning Code
IRC	900 Montclair Road		
	Birmingham, AL 35213-1206		
	Fax: 205/592-7001		
	codechangesbhm@iccsafe.org		

CODE CHANGE PROPOSAL

Please provide all of the following items in your code change proposal. Your proposal may be entered on the following form, or you may attach a separate file. However, please read the instructions provided for each part of the code change proposal. The sections identified in parentheses are the applicable sections from CP #28 Code Development. The full procedures can be downloaded from www.iccsafe.org.

Code Sections/Tables/Figures Proposed for Revision (3.3.2): Section 403.15 (new)

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

Name/Company/Representing (3.3.1): William M. Connolly, Chairman, International Code Council Ad Hoc Committee on Terrorism Resistant Buildings

Note: You must indicate your name and the full name of who you are representing. Do not use acronyms.

Proposal:

(Add new text as follows) 403.15 Remoteness of exit stair enclosures. Exit stair enclosures shall be located in different structural bays. The nearest wall of separate required exit stair enclosures shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the building or area to be served measured in a straight line between the nearest portion of the stair enclosure. In buildings with three or more stair enclosures, the exit stair enclosures shall be placed a distance apart equal to not less than one-third of the length of the maximum overall diagonal dimension of the building or area to be served measured in a straight line between the nearest portion of the stair enclosure. Scissor stairs shall be counted as one exit stairway.

Supporting Information (3.3.4 & 3.4):

This code change proposal is one of fourteen proposals being submitted by the International Code Council Ad Hoc Committee on Terrorism Resistant Buildings.

Purpose:

The purpose of this change is to add a new Section 403.15 that will require stair shafts to meet remoteness criteria, in addition to the separation distance requirements for exit access doorways of Section 1015.2.

Reason:

The Code has long contained requirements designed to ensure that all the exit access doors on a floor are not grouped closely together. Grouping exit access doors too closely defeats the whole point of multiple exits.

The National Institute of Standards and Technology's (NIST) report on the World Trade Center (WTC) tragedy recommends a new remoteness criterion for stair shafts (Recommendation 18). The report pointed out that, at some locations, stairs that met the exit access distance requirements were, nonetheless, very closely grouped. Their shafts were very close together and all three were destroyed by the airplane impact, thereby dooming all above. It is not the proponents' intent to make stair shafts immune to airplane attacks but the re-examination of our basic criteria that was prompted by the attack and the WTC Report suggests that far less dramatic events could render more than one stair shaft unusable. The cause need not be an act of terror either. There are other explosive hazards in high rise buildings. It is only prudent to separate the stair shafts themselves as well as the exit access doors.

It is possible that, in some high rise office buildings, this provision will result in one or more stairs being across the hall from the core rather than in the core. No additional floor area will be required for the sum total of core and stairs. If a stair is outside the traditional core, then the core itself will be smaller. Some might suggest that such a stair location might inhibit design flexibility in tenant spaces. This is simply not true. The architect might have to work a little harder to develop layouts but, with a little skill, any constraint can be incorporated into an acceptable design.

The proposal actually introduces two remoteness criteria. The first is a traditional standard based upon diagonal distances. The second requires that two stairs not be located in the same bay. This requirement correlates with two other changes submitted by the proponents. The proposed disproportionate collapse provisions of the proposed new Section 1605 and the proposed burnout without excessive collapse provisions of proposed new Section 403.15 both work to limit the extent of collapse. The structural bay aspect of this proposal is intended to exclude the possibility that two shafts might be in the same collapse zone.

Substantiation:

The proposal requires the nearest points of two stair enclosures to be separated by a distance exceeding one-half the maximum overall diagonal dimension (one third in the case of buildings having three or more required stairs). The proposal also requires that multiple stair shafts not be located in the same bay for the reasons described above.

Bibliography:

National Institute of Standards and Technology. Final Report of the National Construction Safety Team on the Collapses of the World Trade Center Towers. United States Government Printing Office: Washington, D.C. September 2005.

Referenced Standards (3.4 & 3.6):

None.

Cost Impact (3.3.4.6):**Costs:**

The proposal will not increase construction costs. It merely deals with the location of building elements that are already required by the Code.