INTERNATIONAL CODE COUNCIL
2012/2013 CODE DEVELOPMENT CYCLE
Group A (2012)

PROPOSED CHANGES TO THE
2012 EDITIONS OF THE

INTERNATIONAL BUILDING CODE®

INTERNATIONAL FUEL GAS CODE®

INTERNATIONAL MECHANICAL CODE®

INTERNATIONAL PLUMBING CODE®

INTERNATIONAL PRIVATE SEWAGE DISPOSAL CODE®

April 29th – May 8th, 2012
Sheraton Dallas Hotel
Dallas, TX

First Printing

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TABLE OF CONTENTS
(Group A)

PAGE

Introduction ii
2012 ICC Code Development Hearings ii
Registration and Voting ii
Advanced Registration iii
Code Development Process Changes iii
Procedures iii
Assembly Action iv
Multiple Part Code Change Proposals iv
Group A and B Code Changes by Committee v
Group A Code Development Committee Responsibilities vi
Analysis Statements vi
Reference Standards vi
Referenced Standards Updates vi
Modifications vii
Code Correlation Committee viii
ICC Website viii
2012/2013 Code Development Schedule ix
2012/2013 Staff Secretaries x
Assignment Crossover — Within the IBC xi
CP #28-05 Code Development xii
Cross Index of Proposed Changes xxiv
Hearing Schedule xxix
2012 Proposed Changes xxx

INTRODUCTION

The proposed changes published herein have been submitted in accordance with established procedures and are distributed for review. The publication of these changes constitutes neither endorsement nor question of them but is in accordance with established procedures so that any interested individuals may make their views known to the relevant code committee and others similarly interested. In furtherance of this purpose, the committee will hold an open public hearing at the date and place shown below for the purpose of receiving comments and arguments for or against such proposed changes. Those who are interested in testifying on any of the published changes are expected to be represented at these hearings.

This compilation of code change proposals is available in electronic form only. As part of ICC's green initiative, ICC will no longer print and distribute this document. The compilation of code change proposals will be posted on the ICC website, and CD copies will be distributed to all interested parties on our list.

2012 ICC CODE DEVELOPMENT HEARINGS

These proposed changes will be discussed in public hearings to be held on April 29th, 2012 through May 8th, 2012 at the Sheraton Dallas Hotel, Dallas, Texas. The code committees will conduct their public hearings in accordance with the schedule shown on page xxix.

REGISTRATION AND VOTING

All members of ICC may vote on any assembly motion on proposed code changes to all International Codes. **For identification purposes, eligible voting members must register, at no cost, in order to vote.** The registration desk will be open in the lobby of the convention center according to the following schedule:

Saturday, April 28th	4:00 pm to 6:00 pm
Sunday, April 29th through Tuesday, May 8th	7:30 am to 5:00 pm

Council Policy #28-Code Development (page xii) requires that ICC's membership records regarding ICC members reflect the eligible voters 10 days prior to the start of the Code Development Hearings. This process includes new as well as changes to voting status. Section 5.7.4 of CP #28 (page xix) reads as follows:

> **5.7.4 Eligible Voters:** All members of ICC in attendance at the public hearing shall be eligible to vote on floor motions. Each member is entitled to one vote, except that each Governmental Member Voting Representative in attendance may vote on behalf of its Governmental Member. Code Development Committee members shall be eligible to vote on floor motions. Application, whether new or updated, for ICC membership must be received by the Code Council ten days prior to the commencement of the first day of the public hearing.

As such, new membership applications as well as renewal applications must be received by ICC's Member Services Department by April 18th, 2012. These records will be used to verify eligible voter status for the Code Development Hearings. Members are strongly encouraged to review their membership records for accuracy well in advance of the hearings so that any necessary changes are made prior to the April 18th, 2012 deadline. For information on application for new membership and membership renewal, please go to www.iccsafe.org/membership/join.html or call ICC Member Services at 1-888-ICC SAFE (422-7233)

It should be noted that a corporate member has a single vote. Only one representative of a corporate member will be issued a voting badge. ICC Staff will be contacting corporate members regarding who the designated voting representative will be.

ADVANCED REGISTRATION

You are encouraged to advance register by filling out the registration form available at www.iccsafe.org/springhearings.

CODE DEVELOPMENT PROCESS CHANGES

As noted in the posted Advisory Statement of February 4, 2009, the revised Code Development Process includes maintaining the current 3-year publication cycle with a single cycle of code development between code editions. The schedule for the 2012/2013 Code Development Cycle is the first schedule for the revised code development process (see page ix).

PROCEDURES

The procedures for the conduct of the public hearing are published in *Council Policy #28-Code Development (CP#28)* ("Procedures") on page xii. The attention of interested parties is specifically directed to Section 5.0 of the Procedures. These procedures indicate the conduct of, and opportunity to participate in the ICC Code Development Process. Please review these procedures carefully to familiarize yourself with the process.

There have been a number of revisions to the procedures. Included among these revisions are the following:

Section 1.6: **Recording.** This section was revised to clarify that ICC maintains sole ownership in the content of the hearings and has the right to control its subsequent distribution. In addition, the technology references were updated, using the term "recording" to replace "videotaping".

Section 2.4 **Emergency Procedures.** This section was revised create a 'metric' to aid in the determination of when an issue rises to the level of concern appropriate to an emergency amendment. Furthermore, it now stipulates a process by which a proposed Emergency Amendment is reviewed by the ICC Codes and Standards Council who is responsible for the implementation and oversight of ICC's Code Development Process.

Section 3.3.1
&
Section 6.4.1 **Proponent.** An e-mail address for each code change/public comment proponent will be published in the monograph, unless the proponent requests otherwise.

Section 3.3.5.3
&
Section 6.4.5 **Substantiation.** ICC evaluates whether substantiating material is germane, but the amendment makes it clear that ICC does not in all circumstances evaluate substantiating material for quality or accuracy.

Section 3.3.5.6 **Cost Impact.** The proponent should submit information that supports their claim regarding cost impact. Any information submitted will be considered by the code development committee. This language is intended to emphasize the need to provide information on how the proposed change will affect the cost of construction.

Section 3.6.3.1 If a proposed new standard is not submitted in at least draft form, the corresponding code change proposal shall be considered incomplete and shall not be processed.

Section 4.5.1 **Standards referenced in the I-Codes.** The deadline for availability of updated referenced standards and receipt by the Secretariat is December 1st of the third year of each code cycle. For the 2012/2013 cycle, the deadline is December 1st, 2014.

Section 5.2.2 **Conflict of interest.** The original language, "Violation thereof shall result in the immediate removal of the committee member from the committee." was removed because there was no mechanism to enforce it. The recourse for someone who feels this section has been violated is to appeal.

Section 5.4.2 **Open meetings.** A provision has been added that stipulates that participants shall not advocate a position on specific code changes with Committee Members other than through the methods provided in this policy.

Section 5.4.3
&
Section 7.3.3 **Presentation of Material at the Public Hearing.** All participants are to make it clear what interests they are representing. This disclosure provides additional information upon which to evaluate the testimony.

Section 5.7 **Assembly consideration.** A successful assembly action will no longer be the initial motion at the Final Action Consideration.

Section 5.7.3 **Assembly action.** A successful assembly action shall be a majority vote of the votes cast by eligible voters, rather than a 2/3 majority (see below).

Section 5.7.4 **Eligible voters.** This section is revised to clarify that each member, including Governmental Member Voting Representatives, gets only one vote.

Section 7.4 **Eligible voters.** This section requires that all Governmental Membership applications must be received by April 1 of the year of the Final Actions for a Governmental Member to be eligible to vote at the Final Action Hearings.

ASSEMBLY ACTION

The procedures regarding assembly action at the Code Development Hearings have been revised (see Section 5.7 of CP #28 on page xix). Some important items to note regarding assembly action are:

- A successful assembly action now requires a simple majority rather than a 2/3 majority.
- After the committee decision on a code change proposal is announced by the moderator, any one in the assembly may make a motion for assembly action.
- After a motion for assembly action is made and seconded, the moderator calls for a floor vote in accordance with Section 5.7.2. *No additional testimony will be permitted.*
- A code change proposal that receives a successful assembly action will be placed on the Final Action Hearing Agenda for individual consideration.

MULTIPLE PART CODE CHANGE PROPOSALS

It is common for ICC to receive code change proposals for more than one code or more than 1 part of a code that is the responsibility of more than one committee. For instance, a code change proposal could be proposing related changes to the text of IBC Chapter 4 (IBC-General), IBC Chapter 7 (IBC-Fire Safety), and the IFC Chapter 27 (IFC). When this occurs, a single committee will now hear all of the parts, unless one of the parts is a change to the IRC, in which case the respective IRC committee will hear that part separately.

GROUP A AND GROUP B CODE CHANGES

Starting with this 2012/2013 Code Development Cycle, for the development of the 2015 Edition of the I-Codes, there are two groups of code development committees and they will meet in separate years. The groupings are as follows:

Group A Codes (Heard in 2012)	***Group B Codes (Heard in 2013)***
International Building Code Committees: *IBC-Fire Safety (Chapters: 7, 8, 9, 14, 26 and App. D)* *IBC-General (Chapters: 2-6, 12, 13, 27-34, App. A, B, C, F, H, K)* *IBC-Means of Egress (Chapters: 10, 11 and App. E)* *IBC-Structural (Chapters: 15-25 and App. G,I, J, L, M)*	*Administrative Provisions (Chapter 1 all codes except IRC and IECC, referenced standards administrative updates, and designated definitions)* *Administrative Code Committee*
International Fuel Gas Code *IFGC Committee*	*International Energy Conservation Code (see note 1)* *Commercial Energy Committee* *Residential Energy Committee*
International Mechanical Code *IMC Committee*	*International Existing Building Code* *IEBC Committee*
International Plumbing Code *IPC Committee*	*International Fire Code* *IFC Committee*
International Private Sewage Disposal Code *IPC Committee*	*International Green Construction Code Committees:* *IGCC—Energy/Water Committee (Chapters: 6 and 7)* *IGCC—General Committee (Chapters:2-5, 8-11 and Append)*
	International Performance Code (see note 2) *ICC Performance Code Committee*
	International Property Maintenance Code *IPMC/IZC Committee*
	International Wildland-Urban Interface Code *IFC Committee*
	International Zoning Code *IPMC/IZC Committee*
	International Residential Code Committees: *IRC-B (Chapters: 1-10 and App. E, F, G,H, J, K, L, M, O)* *IRC-M/P (Chapters: 12-33 and App. I, P)*
	International Swimming Pool and Spa Code *ISPSC Committee*

NOTE:

1. Residential Energy Committee is responsible for Chapter 11 of the IRC and the Residential Provisions of the IECC.
2. In anticipation of minimal code change activity, a ICC Performance Committee has not been appointed. Any changes will be considered by the IFC Committee.

GROUP A CODE DEVELOPMENT COMMITTEE RESPONSIBILITIES

Some sections of the International Codes have a letter designation in brackets in front of them. For instance, Section 301.1.4 of the IEBC has a [B] in front of it, meaning that this section is the responsibility of one of the IBC Code Development Committees (in this case, IBC-S).

Code change proposals submitted for such code sections that have a bracketed letter designation in front of them will be heard by the respective committee responsible for such code sections. Because different committees will meet in different years, some proposals for a given code will be heard by a committee in a different year than the year in which the primary committee for this code meets.

Note that there are several code change proposals in the IBC-Structural hearing order that are changes to the International Existing Building Code (marked with prefix "EB"). These are proposed changes to sections of the existing building code that are the responsibility of the IBC-Structural Code Development Committee.
A complete summary of the Group A and Group B Code Development Committees' responsibilities can be view at the ICC Website: http://www.iccsafe.org/cs/codes/Documents/2012-13cycle/GroupA-B_CDC-Responsibilities.pdf.

ANALYSIS STATEMENTS

Various proposed changes published herein contain an "analysis" that appears after the proponent's reason. These comments do not advocate action by the code committees or the voting membership for or against a proposal. The purpose of such comments is to identify pertinent information that is relevant to the consideration of the proposed change by all interested parties, including those testifying, the code committees and the voting membership. Staff analyses customarily identify such things as: conflicts and duplication within a proposed change and with other proposed changes and/or current code text; deficiencies in proposed text and/or substantiation; text problems such as wording defects and vagueness; background information on the development of current text; and staff's review of proposed reference standards for compliance with the Procedures. Lack of an analysis indicates neither support for, nor opposition to a proposal.

REFERENCE STANDARDS

Proposed changes that include the addition of a reference to a new standard (i.e. a standard that is not currently referenced in the I-Codes.) will include in the proposal the number, title and edition of the proposed standard. This identifies to all interested parties the precise document that is being proposed and which would be included in the referenced standards chapter of the code if the proposed change is approved. Section 3.6.3.1 of CP #28 now requires that a code change proposal will not be processed unless a consensus draft of the standard has been provided. Proponents of code changes which propose a new standard have been directed to forward copies of the standard to the Code Committee. An analysis statement will be posted on the ICC website providing information regarding standard content, such as enforceable language, references to proprietary products or services, and references to consensus procedure. The analysis statements for referenced standards will be posted on or before March 28th, 2012. This information will also be published and made available at the hearings.

REFERENCED STANDARDS UPDATES

Administrative updates of any standards already referenced in any of the I-Codes will be contained in a code change proposal for consideration by the Administrative Code Development Committee. The Administrative Code Development Committee is a Group B committee which will conduct hearings on the administrative provisions (Chapter 1 and certain definitions) of all I-Codes, and the referenced standards update. Therefore, this committee will conduct its code development hearing during the code development hearings in 2013.

It should be noted that, in accordance with Section 4.5.1 of CP #28 (see page xvi), standards promulgators will have until December 1, 2014 to finalize and publish any updates to standards in the administrative update. If the standard update is not finalized and published by December 1, 2014, the respective I-Codes will be revised to reference the previously listed year edition of the standard.

MODIFICATIONS

Those who are submitting a modification for consideration by the respective Code Development Committee are required to submit a Copyright Release in order to have their modifications considered (Section 3.3.4.5 of CP #28). It is preferred that such release be executed in advance – the form is at http://www.iccsafe.org/cs/codes/publicforms.htm. Copyright release forms will also be available at the hearings. Please note that an individual need only sign one copyright release for submittals of all code change proposals, modifications, and public comments in this code change cycle for which the individual might be responsible. **Please be sure to review Section 5.5.2 of CP #28 for the modification process.** The Chair of the respective code development committee rules a modification in or out of order. That ruling is final, with no challenge allowed. The proponent submitting a modification is required to supply 20 printed copies. The minimum font size must be 16 point.

Example:

Original code change proposal.

The original code change proposal requested the following change to Section 305.3 of one of our I-Codes: (Note that the example is fictional.)

G10-12
305.13

Proponent: John West representing self

Revise as follows:

305.3 Interior surfaces. All interior surfaces, including windows and doors, shall be maintained in good and clean condition. Peeling, chipping, flaking or abraded paint shall be repaired, removed or covered. Cracked or loose plaster~~, decayed wood~~ and other defective surface conditions shall be corrected. Surfaces of porous materials made of or containing organic materials, such as but not limited to wood, textiles, paint, cellulose insulation, and paper, including paper-faced gypsum board, that have visible signs of mold or mildew shall be removed and replaced or remediated in an approved manner.

Exception: Porous materials that do not contain organic materials, such as clean unpainted bricks and concrete.

Proposed modification:

A modification to the code change proposal is proposed:

1. To add “and sanitary” after “clean” in the first sentence.
2. To add “or water permeable” after “porous” in the third sentence.
3. Delete “in an approved manner.” in the last sentence.
4. Delete the proposed new exception.

The modification should read as follows. Note that the font style is Ariel, and the font size is 16 pt.
The ~~cross out,~~ underline format is removed from the text of the original proposal and the requested revisions in the original proposal are made and shown as original text. The modification to the original proposal is shown with ~~cross out,~~ underline format applied to the changes proposed in the modification.

Example of proposed modification:

G10-12
305.13

Proponent: Sam Sumter representing self

Modify the proposal as follows:

305.3 Interior surfaces. All interior surfaces, including windows and doors, shall be maintained in good, ~~and~~ clean and sanitary condition. Peeling, chipping, flaking or abraded paint shall be repaired, removed or covered. Cracked or loose plaster and other defective surface conditions shall be corrected. Surfaces of porous or water permeable materials made of or containing organic materials, such as but not limited to wood, textiles, paint, cellulose insulation, and paper, including paper-faced gypsum board, that have visible signs of mold or mildew shall be removed and replaced or remediated ~~in an approved manner~~.

> ~~**Exception:** Porous materials that do not contain organic materials, such as clean unpainted bricks and concrete.~~

Note: *The modification should be able to be shown on the overhead screen on a single page. Only show the pertinent part of the code change proposal that shows the intended revisions. The entire code change proposal need not be shown.*

CODE CORRELATION COMMITTEE

In every code change cycle, there are code change proposals that are strictly editorial. The Code Correlation Committee approves all proposals deemed editorial. A list of code correlation committee actions are shown at the end of this document (CCC-1).

ICC WEBSITE – WWW.ICCSAFE.ORG

This document is posted on the ICC Website, www.iccsafe.org. While great care has been exercised in the publication of this document, errata to proposed changes may occur. Errata, if any, will be identified in updates posted prior to the Code Development Hearings on the ICC website at http://www.iccsafe.org. Users are encouraged to periodically review the ICC Website for updates to the 2012/2013 Code Development Cycle-Group A (2012) Proposed Changes. Additionally, analysis statements for code changes which propose a new referenced standard will be updated to reflect the staff review of the standard for compliance with Section 3.6 of the Procedures.

PROPONENT CONTACT INFORMATION

For most of the code change proposals, an e-mail address for the proponent has been provided.

2012/2013 ICC CODE DEVELOPMENT SCHEDULE

STEP IN CODE DEVELOPMENT CYCLE	DATE	
	2012 – Group A Codes IBC, IFGC, IMC, IPC, IPSDC (See Notes)	**2013 – Group B Codes Admin, ICCPC, IEBC, IECC, IFC, IgCC, IPMC, ISPSC, IRC, IWUIC, IZC (See Notes)**
2012 EDITION OF I-CODES PUBLISHED	April 30, 2011	
DEADLINE FOR RECEIPT OF APPLICATIONS FOR ALL CODE COMMITTEES	June 1, 2011 (updated to July 1 for IECC and IRC – Energy; August 1 for IgCC and ISPSC)	
DEADLINE FOR RECEIPT OF CODE CHANGE PROPOSALS	January 3, 2012	January 3, 2013
WEB POSTING OF "PROPOSED CHANGES TO THE I-CODES"	March 12, 2012	March 11, 2013
DISTRIBUTION DATE OF "PROPOSED CHANGES TO THE I-CODES" (CD only)	April 2, 2012	April 1, 2013
CODE DEVELOPMENT HEARING (CDH)	April 29 – May 6, 2012 Sheraton Dallas Hotel Dallas, TX	April 21 – 28, 2013 Sheraton Dallas Hotel Dallas, TX
WEB POSTING OF "REPORT OF THE PUBLIC HEARING"	June 8, 2012	May 31, 2013
DISTRIBUTION DATE OF "REPORT OF THE PUBLIC HEARING" (CD only)	June 29, 2012	June 21, 2013
DEADLINE FOR RECEIPT OF PUBLIC COMMENTS	August 1, 2012	July 15, 2013
WEB POSTING OF PUBLIC COMMENTS "FINAL ACTION AGENDA"	September 10, 2012	August 28, 2013
DISTRIBUTION DATE OF PUBLIC COMMENTS "FINAL ACTION AGENDA" (CD only)	October 1, 2012	September 16, 2013
FINAL ACTION HEARING (FAH)	October 24 – 28, 2012 Oregon Convention Center Portland, OR	October 2 – 9, 2013 Atlantic City Convention Center Atlantic City, NJ
ANNUAL CONFERENCES	October 21 – 24, 2012 Oregon Convention Center Portland, OR	September 29 – October 2, 2013 Atlantic City Convention Center Atlantic City, NJ

Notes:

- Be sure to review the "Group A and Group B Code Development Committee Responsibilities" posted at www.iccsafe.org/responsibilities which identifies committee responsibilities which are different than Group A and Group B codes which may impact the applicable code change cycle and resulting code change deadline.
- The International Green Construction Code (IgCC) and International Swimming Pool and Spa Code (ISPSC) to undergo a full cycle of code development in 2011 resulting in 2012 editions published in March/2012
- Group B "Admin" includes code change proposals submitted to Chapter 1 of all the I-Codes except the ICCPC, IECC and IRC and the administrative update of referenced standards in the 2012 I-Codes
- Start 2015/2016 Code Development Cycle with Group A code change proposals due January 5, 2015

2012/2013 STAFF SECRETARIES

GROUP A (2012)

IBC-Fire Safety Chapters 7, 8, 9, 14, 26	IBC-General Chapters 1-6, 12, 13, 27-34	IBC-Means of Egress Chapters 10, 11	IBC-Structural Chapters 15-25
Ed Wirtschoreck ICC Chicago District Office 1-888-ICC-SAFE, ext 4317 FAX: 708/799-0320 ewirtschoreck@iccsafe.org	BethTubbs ICC Northbridge Field Office 1-888-ICC-SAFE, ext 7708 FAX: 419/ 730-6531 btubbs@iccsafe.org	Kim Paarlberg ICC Indianapolis Field Office 1-888-ICC-SAFE, ext 4306 FAX: 708/799-0320 kpaarlberg@iccsafe.org	Alan Carr ICC NW Resource Center 1-888-ICC-SAFE, ext 7601 FAX: 425/637-8939 acarr@iccsafe.org
IFGC	**IMC**	**IPC/IPSDC**	
Gregg Gress ICC Chicago District Office 1-888-ICC-SAFE, ext 4343 FAX: 708/799-0320 ggress@iccsafe.org	Gregg Gress ICC Chicago District Office 1-888-ICC-SAFE, ext 4343 FAX: 708/799-0320 ggress@iccsafe.org	Fred Grable ICC Chicago District Office 1-888-ICC-SAFE, ext 4359 FAX: 708/799-0320 fgrable@iccsafe.org	

GROUP B (2013)

ADMINISTRATIVE Chapter 1 All Codes Except IRC	IEBC	IECC-Commercial	IECC-Residential
Kim Paarlberg ICC Indianapolis Field Office 1-888-ICC-SAFE, ext 4306 FAX: 708/799-0320 kpaarlberg@iccsafe.org	BethTubbs ICC Northbridge Field Office 1-888-ICC-SAFE, ext 7708 FAX: 419/ 730-6531 btubbs@iccsafe.org	Dave Bowman ICC Chicago District Office 1-888-ICC-SAFE, ext 4323 FAX: 708/799-0320 dbowman@iccsafe.org	Dave Bowman ICC Chicago District Office 1-888-ICC-SAFE, ext 4323 FAX: 708/799-0320 dbowman@iccsafe.org
IFC	**IgCC-General**	**IgCC-Energy/Water**	**ICC PC**
Bill Rehr/ Beth Tubbs ICC Chicago District Office 1-888-ICC-SAFE, ext 4342 FAX: 708/799-0320 brehr@iccsafe.org btubbs@iccsafe.org	Allan Bilka ICC Chicago District Office 1-888-ICC-SAFE, ext 4326 FAX: 708/799-0320 abilka@iccsafe.org	Fred Grable ICC Chicago District Office 1-888-ICC-SAFE, ext 4359 FAX: 708/799-0320 fgrable@iccsafe.org	BethTubbs ICC Northbridge Field Office 1-888-ICC-SAFE, ext 7708 FAX: 419/ 730-6531 btubbs@iccsafe.org
IPMC	**IRC-Building**	**IRC Mechanical**	**IRC Plumbing**
Ed Wirtschoreck ICC Chicago District Office 1-888-ICC-SAFE, ext 4317 FAX: 708/799-0320 ewirtschoreck@iccsafe.org	Larry Franks/ Dave Bowman ICC Birmingham District Office 1-888-ICC-SAFE, ext 5279 FAX: 205/592-7001 lfranks@iccsafe.org dbowman@iccsafe.org	Gregg Gress ICC Chicago District Office 1-888-ICC-SAFE, ext 4343 FAX: 708/799-0320 ggress@iccsafe.org	Fred Grable ICC Chicago District Office 1-888-ICC-SAFE, ext 4359 FAX: 708/799-0320 fgrable@iccsafe.org
ISPSC	**IWUIC**	**IZC**	
Fred Grable ICC Chicago District Office 1-888-ICC-SAFE, ext 4359 FAX: 708/799-0320 fgrable@iccsafe.org	Bill Rehr ICC Chicago District Office 1-888-ICC-SAFE, ext 4342 FAX: 708/799-0320 brehr@iccsafe.org	Ed Wirtschoreck ICC Chicago District Office 1-888-ICC-SAFE, ext 4317 FAX: 708/799-0320 ewirtschoreck@iccsafe.org	

COMMITTEE A
ASSIGNMENT CROSSOVER LIST—WITHIN THE IBC

The 2012/2013 Staff Secretaries assignments on page x indicate which chapters of the International Building Code are generally within the responsibility of each IBC Code Committee. However, within each of these IBC Chapters are subjects that are most appropriately maintained by another IBC Code Committee. For example, the provisions of Section 403.5 deal with means of egress from high-rise buildings. Therefore, even though Chapter 4 is within the responsibility of the IBC – General Committee, this section would most appropriately be maintained by the IBC – Means of Egress Committee. The following table indicates responsibilities by IBC Code Committees other than the main committee for those chapters, for code changes submitted for the 2012 portion (Group A) of the 2012/2013 Cycle.

SECTION	CHAPTER MAINTAINED BY	SECTION MAINTAINED BY	CODE CHANGE PROPOSALS
403.5	IBC-General	IBC-Means of Egress	E4, E7
405.7.1	IBC-General	IBC-Means of Egress	E3
411.7	IBC-General	IBC-Means of Egress	E3
1508.1	IBC-Structural	IBC-Fire Safety	FS178
3401.2	IBC-General	IBC-Structural	S90
3406.1.3	IBC-General	IBC-Means of Egress	E4
3406.4	IBC-General	IBC-Means of Egress	E4
3411.8.4	IBC-General	IBC-Means of Egress	E4
3411.8.15	IBC-General	IBC-Means of Egress	E211

CP# 28-05 CODE DEVELOPMENT

Approved: **9/24/05**
Revised: **10/29/11**

CP # 28-05 is an update to *ICC's Code Development Process for the International Codes* dated May 15, 2004.

1.0 Introduction

1.1 **Purpose:** The purpose of this Council Policy is to prescribe the Rules of Procedure utilized in the continued development and maintenance of the International Codes (Codes).

1.2 **Objectives:** The ICC Code Development Process has the following objectives:

1.2.1 The timely evaluation and recognition of technological developments pertaining to construction regulations.

1.2.2 The open discussion of proposals by all parties desiring to participate.

1.2.3 The final determination of Code text by public officials actively engaged in the administration, formulation or enforcement of laws, ordinances, rules or regulations relating to the public health, safety and welfare and by honorary members.

1.3 **Code Publication:** The ICC Board of Directors (ICC Board) shall determine the title and the general purpose and scope of each Code published by the ICC.

1.3.1 **Code Correlation:** The provisions of all Codes shall be consistent with one another so that conflicts between the Codes do not occur. Where a given subject matter or code text could appear in more than one Code, the ICC Board shall determine which Code shall be the primary document, and therefore which code development committee shall be responsible for review and maintenance of the code text. Duplication of content or text between Codes shall be limited to the minimum extent necessary for practical usability of the Codes, as determined in accordance with Section 4.4.

1.4 **Process Maintenance:** The review and maintenance of the Code Development Process and these Rules of Procedure shall be by the ICC Board. The manner in which ICC codes are developed embodies core principles of the organization. One of those principles is that the final content of ICC codes is determined by a majority vote of the governmental and honorary members. It is the policy of the Board that there shall be no change to this principle without the affirmation of two-thirds of the governmental and honorary members responding.

1.5 **Secretariat:** The Chief Executive Officer shall assign a Secretariat for each of the Codes. All correspondence relating to code change proposals and public comments shall be addressed to the Secretariat.

1.6 **Recording:** Individuals requesting permission to record any meeting or hearing, or portion thereof, shall be required to provide the ICC with a release of responsibility disclaimer and shall acknowledge that ICC shall retain sole ownership of the recording, and that they have insurance coverage for liability and misuse of recording materials. Equipment and the process used to record shall, in the judgment of the ICC Secretariat, be conducted in a manner that is not disruptive to the meeting. The ICC shall not be responsible for equipment, personnel or any other provision necessary to accomplish the recording. An unedited copy of the recording shall be forwarded to ICC within 30 days of the meeting. Recordings shall not otherwise be copied, reproduced or distributed in any manner. Recordings shall be returned to

ICC or destroyed upon the request of ICC.

2.0 Code Development Cycle

2.1 Intent: The code development cycle shall consist of the complete consideration of code change proposals in accordance with the procedures herein specified, commencing with the deadline for submission of code change proposals (see Section 3.5) and ending with publication of final action on the code change proposals (see Section 7.6).

2.2 New Editions: The ICC Board shall determine the schedule for publishing new editions of the Codes. Each new edition shall incorporate the results of the code development activity since the last edition.

2.3 Supplements: The results of code development activity between editions may be published.

2.4 Emergency Procedures:

2.4.1 Scope: Emergency actions are limited to those issues representing an immediate threat to health and safety that warrant a more timely response than allowed by the Code Development Process schedule.

2.4.2 Initial Request: A request for an emergency action shall be based upon perceived threats to health and safety and shall be reviewed by the ICC Codes and Standards Council for referral to the Board of Directors for action with their analysis and recommendation.

2.4.3 Board and Member Action: In the event that the ICC Board determines that an emergency amendment to any Code is warranted, the same may be adopted by the ICC Board. Such action shall require an affirmative vote of at least two-thirds of the ICC Board.

The ICC membership shall be notified within ten days after the ICC Boards' official action of any emergency amendment. At the next Annual Business Meeting, any emergency amendment shall be presented to the members for ratification by a majority of the ICC Governmental Member Representatives and Honorary Members present and voting.

All code revisions pursuant to these emergency procedures and the reasons for such corrective action shall be published as soon as practicable after ICC Board action. Such revisions shall be identified as an emergency amendment.

Emergency amendments to any Code shall not be considered as a retro-active requirement to the Code. Incorporation of the emergency amendment into the adopted Code shall be subjected to the process established by the adopting authority.

3.0 Submittal of Code Change Proposals

3.1 Intent: Any interested person, persons or group may submit a code change proposal which will be duly considered when in conformance to these Rules of Procedure.

3.2 Withdrawal of Proposal: A code change proposal may be withdrawn by the proponent (WP) at any time prior to Final Action Consideration of that proposal. A withdrawn code change proposal shall not be subject to a public hearing, motions, or Final Action Consideration.

3.3 Form and Content of Code Change Submittals: Each code change proposal shall be submitted separately and shall be complete in itself. Each submittal shall contain the following information:

3.3.1 Proponent: Each code change proposal shall include the name, title, mailing address, telephone number, and email address of the proponent. Email addresses shall be published with the code change proposals unless the proponent otherwise requests on the submittal form.

3.3.1.1 If a group, organization or committee submits a code change proposal, an individual with prime responsibility shall be indicated.

3.3.1.2 If a proponent submits a code change on behalf of a client, group, organization or committee, the name and mailing address of the client, group, organization or committee shall be indicated.

3.3.2 Code Reference: Each code change proposal shall relate to the applicable code sections(s) in the latest edition of the Code.

3.3.2.1 If more than one section in the Code is affected by a code change proposal, appropriate proposals shall be included for all such affected sections.

3.3.2.2 If more than one Code is affected by a code change proposal, appropriate proposals shall be included for all such affected Codes and appropriate cross referencing shall be included in the supporting information.

3.3.3 Multiple code change proposals to a code section. A proponent shall not submit multiple code change proposals to the same code section. When a proponent submits multiple code change proposals to the same section, the proposals shall be considered as incomplete proposals and processed in accordance with Section 4.3. This restriction shall not apply to code change proposals that attempt to address differing subject matter within a code section.

3.3.4 Text Presentation: The text proposal shall be presented in the specific wording desired with deletions shown struck out with a single line and additions shown underlined with a single line.

3.3.4.1 A charging statement shall indicate the referenced code section(s) and whether the proposal is intended to be an addition, a deletion or a revision to existing Code text.

3.3.4.2 Whenever practical, the existing wording of the text shall be preserved with only such deletions and additions as necessary to accomplish the desired change.

3.3.4.3 Each proposal shall be in proper code format and terminology.

3.3.4.4 Each proposal shall be complete and specific in the text to eliminate unnecessary confusion or misinterpretation.

3.3.4.5 The proposed text shall be in mandatory terms.

3.3.5 Supporting Information: Each code change proposal shall include sufficient supporting information to indicate how the proposal is intended to affect the intent and application of the Code.

3.3.5.1 Purpose: The proponent shall clearly state the purpose of the proposed code change (e.g. clarify the Code; revise outdated material; substitute new or revised material for current provisions of the Code; add new requirements to the Code; delete current requirements, etc.)

3.3.5.2 Reasons: The proponent shall justify changing the current Code provisions, stating why the proposal is superior to the current provisions of the Code. Proposals which 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 and explains how such proposals will improve the Code.

3.3.5.3 Substantiation: The proponent shall substantiate the proposed code change based on technical information and substantiation. Substantiation provided which is reviewed in accordance with Section 4.2 and determined as not germane to the technical issues addressed in the proposed code change may be identified as such. The proponent shall be notified that the proposal is considered an incomplete proposal in accordance with Section 4.3 and the proposal shall be held until the deficiencies are corrected. The proponent shall have the right to appeal this action in accordance with the policy of the ICC Board. The burden of providing substantiating material lies with the proponent of the code change proposal. All substantiating material published by ICC is material that has been provided by the proponent and in so publishing ICC makes no representations or warranties about its quality or accuracy.

3.3.5.4 Bibliography: The proponent shall submit a bibliography of any substantiating material submitted with the code change proposal. The bibliography shall be published with the code change and the proponent shall make the substantiating materials available for review at the appropriate ICC office and during the public

hearing.

3.3.5.5 **Copyright Release:** The proponent of code change proposals, floor modifications and public comments shall sign a copyright release reading: "I hereby grant and assign to ICC all rights in copyright I may have in any authorship contributions I make to ICC in connection with any proposal and public comment, in its original form submitted or revised form, including written and verbal modifications submitted in accordance Section 5.5.2. I understand that I will have no rights in any ICC 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."

3.3.5.6 **Cost Impact:** The proponent shall indicate one of the following regarding the cost impact of the code change proposal: 1) the code change proposal will increase the cost of construction; or 2) the code change proposal will not increase the cost of construction. The proponent should submit information that supports their claim. Any information submitted will be considered by the code development committee. This information will be included in the bibliography of the published code change proposal.

3.4 **Number:** One copy of each code change proposal, two copies of each proposed new referenced standard and one copy of all substantiating information shall be submitted. Additional copies may be requested when determined necessary by the Secretariat to allow such information to be distributed to the code development committee. Where such additional copies are requested, it shall be the responsibility of the proponent to send such copies to the respective code development committee. A copy of the code change proposal in electronic form is preferred.

3.5 **Submittal Deadline:** Each code change proposal shall be received at the office of the Secretariat by the posted deadline. Such posting shall occur no later than 120 days prior to the code change deadline. The submitter of a proposed code change is responsible for the proper and timely receipt of all pertinent materials by the Secretariat.

3.6 **Referenced Standards:** In order for a standard to be considered for reference or to continue to be referenced by the Codes, a standard shall meet the following criteria:

3.6.1 Code References:

3.6.1.1 The standard, including title and date, and the manner in which it is to be utilized shall be specifically referenced in the Code text.

3.6.1.2 The need for the standard to be referenced shall be established.

3.6.2 Standard Content:

3.6.2.1 A standard or portions of a standard intended to be enforced shall be written in mandatory language.

3.6.2.2 The standard shall be appropriate for the subject covered.

3.6.2.3 All terms shall be defined when they deviate from an ordinarily accepted meaning or a dictionary definition.

3.6.2.4 The scope or application of a standard shall be clearly described.

3.6.2.5 The standard shall not have the effect of requiring proprietary materials.

3.6.2.6 The standard shall not prescribe a proprietary agency for quality control or testing.

3.6.2.7 The test standard shall describe, in detail, preparation of the test sample, sample selection or both.

3.6.2.8 The test standard shall prescribe the reporting format for the test results. The format shall identify the key performance criteria for the element(s) tested.

3.6.2.9 The measure of performance for which the test is conducted shall be clearly defined in either the test standard or in Code text.

3.6.2.10 The standard shall not state that its provisions shall govern whenever the referenced standard is in conflict with the requirements of the referencing Code.

3.6.2.11 The preface to the standard shall announce that the standard is promulgated according to a consensus procedure.

3.6.3 Standard Promulgation:

3.6.3.1 Code change proposals with corresponding changes to the code text which include a reference to a proposed new standard or a proposed update of an existing referenced shall comply with this section. The standard shall be completed and readily available prior to Final Action Consideration based on the cycle of code development which includes the proposed code change proposal. In order for a new standard to be considered for reference by the Code, such standard shall be submitted in at least a consensus draft form in accordance with Section 3.4. If a new standard is not submitted in at least draft form, the code change shall be considered incomplete and shall not be processed. Updating of standards without corresponding code text changes shall be accomplished administratively in accordance with Section 4.5.

3.6.3.2 The standard shall be developed and maintained through a consensus process such as ASTM or ANSI.

4.0 Processing of Proposals

4.1 Intent: The processing of code change proposals is intended to ensure that each proposal complies with these Rules of Procedure and that the resulting published proposal accurately reflects that proponent's intent.

4.2 Review: Upon receipt in the Secretariat's office, the code change proposals will be checked for compliance with these Rules of Procedure as to division, separation, number of copies, form, language, terminology, supporting statements and substantiating data. Where a code change proposal consists of multiple parts which fall under the maintenance responsibilities of different code committees, the Secretariat shall determine the code committee responsible for determining the committee action in accordance with Section 5.6.

4.3 Incomplete Proposals: When a code change proposal is submitted with incorrect format, without the required information or judged as not in compliance with these Rules of Procedure, the Secretariat shall notify the proponent of the specific deficiencies and the proposal shall be held until the deficiencies are corrected, with a final date set for receipt of a corrected submittal. If the Secretariat receives the corrected proposal after the final date, the proposal shall be held over until the next code development cycle. Where there are otherwise no deficiencies addressed by this section, a proposal that incorporates a new referenced standard shall be processed with an analysis of referenced standard's compliance with the criteria set forth in Section 3.6.

4.4 Editorial: The Chief Executive Officer shall have the authority at all times to make editorial and format changes to the Code text, or any approved changes, consistent with the intent, provisions and style of the Code. An editorial or format change is a text change that does not affect the scope or application of the code requirements.

4.5 Updating Standards:

4.5.1 Standards referenced in the I-Codes: The updating of standards referenced by the Codes shall be accomplished administratively by the Administrative code development committee in accordance with these full procedures except that the deadline for availability of the updated standard and receipt by the Secretariat shall be December 1 of the third year of each code cycle. The published version of the new edition of the Code which references the standard will refer to the updated edition of the standard. If the standard is not available by the deadline, the edition of the standard as referenced by the newly published Code shall revert back to the reference contained in the previous edition and an errata to the Code issued Multiple standards to be updated may be included in a single proposal.

4.6 Preparation: All code change proposals in compliance with these procedures shall be prepared in a standard manner by the Secretariat and be assigned separate, distinct and consecutive numbers. The Secretariat shall coordinate related proposals submitted in accordance with Section 3.3.2 to facilitate the hearing process.

4.7 Publication: All code change proposals shall be posted on the ICC website at least 30 days prior to the public hearing on those proposals and shall constitute the agenda for the public hearing. Code

change proposals which have not been published shall not be considered.

5.0 Public Hearing

5.1 Intent: The intent of the public hearing is to permit interested parties to present their views including the cost and benefits on the code change proposals on the published agenda. The code development committee will consider such comments as may be presented in the development of their action on the disposition of such proposals. At the conclusion of the code development committee deliberations, the committee action on each code change proposal shall be placed before the hearing assembly for consideration in accordance with Section 5.7.

5.2 Committee: The Code Development Committees shall be appointed by the Board of Directors.

5.2.1 Chairman/Moderator: The Chairman and Vice-Chairman shall be appointed by the Steering Committee on Councils from the appointed members of the committee. The ICC President shall appoint one or more Moderators who shall act as presiding officer for the public hearing.

5.2.2 Conflict of Interest: A committee member shall withdraw from and take no part in those matters with which the committee member has an undisclosed financial, business or property interest. The committee member shall not participate in any committee discussion on the matter or any committee vote. A committee member who is a proponent of a proposal shall not participate in any committee discussion on the matter or any committee vote. Such committee member shall be permitted to participate in the floor discussion in accordance with Section 5.5 by stepping down from the dais.

5.2.3 Representation of Interest: Committee members shall not represent themselves as official or unofficial representatives of the ICC except at regularly convened meetings of the committee.

5.2.4 Committee Composition: The committee may consist of representation from multiple interests. A minimum of thirty-three and one-third percent (33.3%) of the committee members shall be regulators.

5.3 Date and Location: The date and location of each public hearing shall be announced not less than 60 days prior to the date of the public hearing.

5.4 General Procedures: *The Robert's Rules of Order* shall be the formal procedure for the conduct of the public hearing except as a specific provision of these Rules of Procedure may otherwise dictate. A quorum shall consist of a majority of the voting members of the committee.

5.4.1 Chair Voting: The Chairman of the committee shall vote only when the vote cast will break a tie vote of the committee.

5.4.2 Open Meetings: Public hearings of the Code Development Committees are open meetings. Any interested person may attend and participate in the Floor Discussion and Assembly Consideration portions of the hearing. Only eligible voters (see Section 5.7.4) are permitted to vote on Assembly Considerations. Only Code Development Committee members may participate in the Committee Action portion of the hearings (see Section 5.6). Participants shall not advocate a position on specific code changes with Committee Members other than through the methods provided in this policy.

5.4.3 Presentation of Material at the Public Hearing: Information to be provided at the hearing shall be limited to verbal presentations and modifications submitted in accordance with Section 5.5.2. Each individual presenting information at the hearing shall state their name and affiliation, and shall identify any entities or individuals they are representing in connection with their testimony. Audio-visual presentations are not permitted. Substantiating material submitted in accordance with Section 3.3.4.4 and other material submitted in response to a code change proposal shall be located in a designated area in the hearing room and shall not be distributed to the code development committee at the public hearing.

5.4.4 Agenda Order: The Secretariat shall publish an agenda for each public hearing, placing individual code change proposals in a logical order to facilitate the hearing. Any public hearing attendee may move to revise the agenda order as the first order of business at the public

hearing, or at any time during the hearing except while another proposal is being discussed. Preference shall be given to grouping like subjects together, and for moving items back to a later position on the agenda as opposed to moving items forward to an earlier position. A motion to revise the agenda order is subject to a 2/3 vote of those present and voting.

5.4.5 Reconsideration: There shall be no reconsideration of a proposed code change after it has been voted on by the committee in accordance with Section 5.6; or, in the case of assembly consideration, there shall be no reconsideration of a proposed code change after it has been voted on by the assembly in accordance with Section 5.7.

5.4.6 Time Limits: Time limits shall be established as part of the agenda for testimony on all proposed changes at the beginning of each hearing session. Each person requesting to testify on a change shall be given equal time. In the interest of time and fairness to all hearing participants, the Moderator shall have limited authority to modify time limitations on debate. The Moderator shall have the authority to adjust time limits as necessary in order to complete the hearing agenda.

5.4.6.1 Time Keeping: Keeping of time for testimony by an individual shall be by an automatic timing device. Remaining time shall be evident to the person testifying. Interruptions during testimony shall not be tolerated. The Moderator shall maintain appropriate decorum during all testimony.

5.4.6.2 Proponent Testimony: The Proponent is permitted to waive an initial statement. The Proponent shall be permitted to have the amount of time that would have been allocated during the initial testimony period plus the amount of time that would be allocated for rebuttal. Where the code change proposal is submitted by multiple proponents, this provision shall permit only one proponent of the joint submittal to be allotted additional time for rebuttal.

5.4.7 Points of Order: Any person participating in the public hearing may challenge a procedural ruling of the Moderator or the Chairman. A majority vote of the eligible voters as determined in Section 5.7.4 shall determine the decision.

5.5 Floor Discussion: The Moderator shall place each code change proposal before the hearing for discussion by identifying the proposal and by regulating discussion as follows:

5.5.1 Discussion Order:

1. *Proponents.* The Moderator shall begin by asking the proponent and then others in support of the proposal for their comments.
2. *Opponents.* After discussion by those in support of a proposal, those opposed hereto, if any, shall have the opportunity to present their views.
3. *Rebuttal in support.* Proponents shall then have the opportunity to rebut points raised by the opponents.
4. *Re-rebuttal in opposition.* Opponents shall then have the opportunity to respond to the proponent's rebuttal.

5.5.2 Modifications: Modifications to proposals may be suggested from the floor by any person participating in the public hearing. The person proposing the modification is deemed to be the proponent of the modification.

5.5.2.1 Submission and Written Copies. All modifications must be written, unless determined by the Chairman to be either editorial or minor in nature. The modification proponent shall provide 20 copies to the Secretariat for distribution to the committee.

5.5.2.2 Criteria. The Chairman shall rule proposed modifications in or out of order before they are discussed on the floor. A proposed modification shall be ruled out of order if it:

1. is not legible, unless not required to be written in accordance with Section 5.5.2.1; or

2. changes the scope of the original proposal; or
3. is not readily understood to allow a proper assessment of its impact on the original proposal or the code.

The ruling of the Chairman on whether or not the modification is in or out of order shall be final and is not subject to a point of order in accordance with Section 5.4.7.

5.5.2.3 **Testimony.** When a modification is offered from the floor and ruled in order by the Chairman, a specific floor discussion on that modification is to commence in accordance with the procedures listed in Section 5.5.1.

5.6 **Committee Action:** Following the floor discussion of each code change proposal, one of the following motions shall be made and seconded by members of the committee.

1. Approve the code change proposal as submitted (AS) or
2. Approve the code change proposal as modified with specific modifications (AM), or
3. Disapprove the code change proposal (D)

Discussion on this motion shall be limited to Code Development Committee members. If a committee member proposes a modification which had not been proposed during floor discussion, the Chairman shall rule on the modification in accordance with Section 5.5.2.2 If a committee member raises a matter of issue, including a proposed modification, which has not been proposed or discussed during the floor discussion, the Moderator shall suspend the committee discussion and shall reopen the floor discussion for comments on the specific matter or issue. Upon receipt of all comments from the floor, the Moderator shall resume committee discussion.

The Code Development Committee shall vote on each motion with the majority dictating the committee's action. Committee action on each code change proposal shall be completed when one of the motions noted above has been approved. Each committee vote shall be supported by a reason.

The Code Development Committee shall maintain a record of its proceedings including the action on each code change proposal.

5.7 **Assembly Consideration:** At the conclusion of the committee's action on a code change proposal and before the next code change proposal is called to the floor, the Moderator shall ask for a motion from the public hearing attendees who may object to the committee's action. If a motion in accordance with Section 5.7.1 is not brought forward on the committee's action, the results of the public hearing shall be established by the committee's action. If a motion in accordance with Section 5.7.1 is brought forward and is sustained in accordance with Section 5.7.3, both the committee's action and the assemblies' action shall be reported as the results of the public hearing.

5.7.1 **Floor Motion:** Any attendee may raise an objection to the committee's action in which case the attendee will be able to make a motion to:

1. Approve the code change proposal as submitted from the floor (ASF), or
2. Approve the code change proposal as modified from the floor (AMF) with a specific modification that has been previously offered from the floor and ruled in order by the Chairman during floor discussion (see Section 5.5.2) or has been offered by a member of the Committee and ruled in order by the Chairman during committee discussion (see Section 5.6), or
3. Disapprove the code change proposal from the floor (DF).

5.7.2 **Discussion:** On receipt of a second to the floor motion, the Moderator shall place the motion before the assembly for a vote. No additional testimony shall be permitted.

5.7.3 **Assembly Action:** A successful assembly action shall be a majority vote of the votes cast by eligible voters (See 5.7.4).

5.7.4 **Eligible Voters:** All members of ICC in attendance at the public hearing shall be eligible to vote on floor motions. Each member is entitled to one vote, except that each Governmental Member Voting Representative in attendance may vote on behalf of its Governmental Member. Code Development Committee members shall be eligible to vote on floor motions. Application, whether

new or updated, for ICC membership must be received by the Code Council ten days prior to the commencement of the first day of the public hearing.

5.8 **Report of the Public Hearing:** The results of the public hearing, including committee action and successful assembly action, shall be posted on the ICC website not less than 60 days prior to Final Action Consideration except as approved by the ICC Board.

6.0 Public Comments

6.1 **Intent:** The public comment process gives attendees at the Final Action Hearing an opportunity to consider specific objections to the results of the public hearing and more thoughtfully prepare for the discussion for Final Action Consideration. The public comment process expedites the Final Action Consideration at the Final Action Hearing by limiting the items discussed to the following:

6.1.1 Consideration of items for which a public comment has been submitted; and

6.1.2 Consideration of items which received a successful assembly action at the public hearing.

6.2 **Deadline:** The deadline for receipt of a public comment to the results of the public hearing shall be announced at the public hearing but shall not be less than 30 days from the availability of the report of the results of the public hearing (see Section 5.8).

6.3 **Withdrawal of Public Comment:** A public comment may be withdrawn by the public commenter at any time prior to Final Action Consideration of that comment. A withdrawn public comment shall not be subject to Final Action Consideration. If the only public comment to a code change proposal is withdrawn by the public commenter prior to the vote on the consent agenda in accordance with Section 7.3.4, the proposal shall be considered as part of the consent agenda. If the only public comment to a code change proposal is withdrawn by the public commenter after the vote on the consent agenda in accordance with Section 7.3.4, the proposal shall continue as part of the individual consent agenda in accordance with Section 7.3.5, however the public comment shall not be subject to Final Action Consideration.

6.4 **Form and Content of Public Comments:** Any interested person, persons, or group may submit a public comment to the results of the public hearing which will be considered when in conformance to these requirements. Each public comment to a code change proposal shall be submitted separately and shall be complete in itself. Each public comment shall contain the following information:

6.4.1 **Public comment:** Each public comment shall include the name, title, mailing address, telephone number and email address of the public commenter. Email addresses shall be published with the public comments unless the commenter otherwise requests on submittal form. If group, organization, or committee submits a public comment, an individual with prime responsibility shall be indicated. If a public comment is submitted on behalf a client, group, organization or committee, the name and mailing address of the client, group, organization or committee shall be indicated. The scope of the public comment shall be consistent with the scope of the original code change proposal, committee action or successful assembly action. Public comments which are determined as not within the scope of the code change proposal, committee action or successful assembly action shall be identified as such. The public commenter shall be notified that the public comment is considered an incomplete public comment in accordance with Section 6.5.1 and the public comment shall be held until the deficiencies are corrected. A copyright release in accordance with Section 3.3.4.5 shall be provided with the public comment.

6.4.2 **Code Reference:** Each public comment shall include the code change proposal number and the results of the public hearing, including successful assembly actions, on the code change proposal to which the public comment is directed.

6.4.3 **Multiple public comments to a code change proposal.** A proponent shall not submit multiple public comments to the same code change proposal. When a proponent submits multiple public comments to the same code change proposal, the public comments shall be considered as incomplete public comments and processed in accordance with Section 6.5.1. This restriction shall not apply to public comments that attempt to address differing subject matter within a code section.

6.4.4 Desired Final Action: The public comment shall indicate the desired final action as one of the following:

1. Approve the code change proposal as submitted (AS), or
2. Approve the code change proposal as modified (AM) by one or more specific modifications published in the Results of the Public Hearing or published in a public comment, or
3. Disapprove the code change proposal (D)

6.4.5 Supporting Information: The public comment shall include in a statement containing a reason and justification for the desired final action on the code change proposal. Reasons and justification which are reviewed in accordance with Section 6.4 and determined as not germane to the technical issues addressed in the code change proposal or committee action may be identified as such. The public commenter shall be notified that the public comment is considered an incomplete public comment in accordance with Section 6.5.1 and the public comment shall be held until the deficiencies are corrected. The public commenter shall have the right to appeal this action in accordance with the policy of the ICC Board. A bibliography of any substantiating material submitted with a public comment shall be published with the public comment and the substantiating material shall be made available at the Final Action Hearing. All substantiating material published by ICC is material that has been provided by the proponent and in so publishing ICC makes no representations or warranties about its quality or accuracy.

6.4.6 Number: One copy of each public comment and one copy of all substantiating information shall be submitted. Additional copies may be requested when determined necessary by the Secretariat. A copy of the public comment in electronic form is preferred.

6.5 Review: The Secretariat shall be responsible for reviewing all submitted public comments from an editorial and technical viewpoint similar to the review of code change proposals (See Section 4.2).

6.5.1 Incomplete Public Comment: When a public comment is submitted with incorrect format, without the required information or judged as not in compliance with these Rules of Procedure, the public comment shall not be processed. The Secretariat shall notify the public commenter of the specific deficiencies and the public comment shall be held until the deficiencies are corrected, or the public comment shall be returned to the public commenter with instructions to correct the deficiencies with a final date set for receipt of the corrected public comment.

6.5.2 Duplications: On receipt of duplicate or parallel public comments, the Secretariat may consolidate such public comments for Final Action Consideration. Each public commenter shall be notified of this action when it occurs.

6.5.3 Deadline: Public comments received by the Secretariat after the deadline set for receipt shall not be published and shall not be considered as part of the Final Action Consideration.

6.6 Publication: The public hearing results on code change proposals that have not been public commented and the code change proposals with public commented public hearing results and successful assembly actions shall constitute the Final Action Agenda. The Final Action Agenda shall be posted on the ICC website at least 30 days prior to Final Action consideration.

7.0 Final Action Consideration

7.1 Intent: The purpose of Final Action Consideration is to make a final determination of all code change proposals which have been considered in a code development cycle by a vote cast by eligible voters (see Section 7.4).

7.2 Agenda: The final action consent agenda shall be comprised of proposals which have neither an assembly action nor public comment. The agenda for public testimony and individual consideration shall be comprised of proposals which have a successful assembly action or public comment (see Sections 5.7 and 6.0).

7.3 Procedure: *The Robert's Rules of Order* shall be the formal procedure for the conduct of the Final Action Consideration except as these Rules of Procedure may otherwise dictate.

7.3.1 Open Meetings: Public hearings for Final Action Consideration are open meetings. Any

interested person may attend and participate in the Floor Discussion.

7.3.2 **Agenda Order:** The Secretariat shall publish an agenda for Final Action Consideration, placing individual code change proposals and public comments in a logical order to facilitate the hearing. The proponents or opponents of any proposal or public comment may move to revise the agenda order as the first order of business at the public hearing, or at any time during the hearing except while another proposal is being discussed. Preference shall be given to grouping like subjects together and for moving items back to a later position on the agenda as opposed to moving items forward to an earlier position. A motion to revise the agenda order is subject to a 2/3 vote of those present and voting.

7.3.3 **Presentation of Material at the Public Hearing:** Information to be provided at the hearing shall be limited to verbal presentations. Each individual presenting information at the hearing shall state their name and affiliation, and shall identify any entities or individuals they are representing in connection with their testimony. Audio-visual presentations are not permitted. Substantiating material submitted in accordance with Section 6.4.4 and other material submitted in response to a code change proposal or public comment shall be located in a designated area in the hearing room.

7.3.4 **Final Action Consent Agenda:** The final action consent agenda (see Section 7.2) shall be placed before the assembly with a single motion for final action in accordance with the results of the public hearing. When the motion has been seconded, the vote shall be taken with no testimony being allowed. A simple majority (50% plus one) based on the number of votes cast by eligible voters shall decide the motion.

7.3.5 **Individual Consideration Agenda:** Upon completion of the final action consent vote, all proposed changes not on the final action consent agenda shall be placed before the assembly for individual consideration of each item (see Section 7.2).

7.3.6 **Reconsideration:** There shall be no reconsideration of a proposed code change after it has been voted on in accordance with Section 7.3.8.

7.3.7 **Time Limits:** Time limits shall be established as part of the agenda for testimony on all proposed changes at the beginning of each hearing session. Each person requesting to testify on a change shall be given equal time. In the interest of time and fairness to all hearing participants, the Moderator shall have limited authority to modify time limitations on debate. The Moderator shall have the authority to adjust time limits as necessary in order to complete the hearing agenda.

7.3.7.1 **Time Keeping:** Keeping of time for testimony by an individual shall be by an automatic timing device. Remaining time shall be evident to the person testifying. Interruptions during testimony shall not be tolerated. The Moderator shall maintain appropriate decorum during all testimony.

7.3.8 **Discussion and Voting:** Discussion and voting on proposals being individually considered shall be in accordance with the following procedures:

7.3.8.1 **Allowable Final Action Motions:** The only allowable motions for final action are Approval as Submitted, Approval as Modified by one or more modifications published in the Final Action Agenda, and Disapproval.

7.3.8.2 **Initial Motion:** The Code Development Committee action shall be the initial motion considered.

7.3.8.3 **Motions for Modifications:** Whenever a motion under consideration is for Approval as Submitted or Approval as Modified, a subsequent motion and second for a modification published in the Final Action Agenda may be made (see Section 6.4.3). Each subsequent motion for modification, if any, shall be individually discussed and voted before returning to the main motion. A two-thirds majority based on the number of votes cast by eligible voters shall be required for a successful motion on all modifications.

7.3.8.4 **Voting:** After dispensing with all motions for modifications, if any, and upon

completion of discussion on the main motion, the Moderator shall then ask for the vote on the main motion. If the motion fails to receive the majority required in Section 7.5, the Moderator shall ask for a new motion.

7.3.8.5 **Subsequent Motion:** If the initial motion is unsuccessful, a motion for one of the other allowable final actions shall be made (see Section 7.3.8.1) and dispensed with until a successful final action is achieved. If a successful final action is not achieved, Section 7.5.1 shall apply.

7.3.9 **Proponent testimony:** The Proponent of a public comment is permitted to waive an initial statement. The Proponent of the public comment shall be permitted to have the amount of time that would have been allocated during the initial testimony period plus the amount of time that would be allocated for rebuttal. Where a public comment is submitted by multiple proponents, this provision shall permit only one proponent of the joint submittal to waive an initial statement.

7.3.10 **Points of Order:** Any person participating in the public hearing may challenge a procedural ruling of the Moderator. A majority vote of the eligible voters as determined in Section 5.7.4 shall determine the decision.

7.4 **Eligible voters:** ICC Governmental Member Representatives and Honorary Members in attendance at the Final Action Hearing shall have one vote per eligible attendee on all International Codes. Applications for Governmental Membership must be received by the ICC by April 1st of the applicable year in order for its designated representatives to be eligible to vote at the Final Action Hearing. Applications, whether new or updated, for governmental member voting representative status must be received by the Code Council thirty (30) days prior to the commencement of the first day of the Final Action Hearing in order for any designated representative to be eligible to vote. An individual designated as a Governmental Member Voting Representative shall provide sufficient information to establish eligibility as defined in the ICC Bylaws. The Executive Committee of the ICC Board, in its discretion, shall have the authority to address questions related to eligibility. Decisions of the Executive Committee shall be final and not appealable pursuant to CP 1, other than claims of fraud or misrepresentation, supported by reasonably credible evidence, that were material to the outcome of the Final Action Hearing.

7.5 **Majorities for Final Action:** The required voting majority based on the number of votes cast of eligible voters shall be in accordance with the following table:

Committee Action (see note)	**Desired Final Action**		
	AS	**AM**	**D**
AS	Simple Majority	2/3 Majority	Simple Majority
AM	2/3 Majority	Simple Majority to sustain the Public Hearing Action or; 2/3 Majority on additional modifications and 2/3 on overall AM	Simple Majority
D	2/3 Majority	2/3 Majority	Simple Majority

7.5.1 **Failure to Achieve Majority Vote:** In the event that a code change proposal does not receive any of the required majorities for final action in Section 7.5, final action on the code change proposal in question shall be disapproval.

7.6 **Publication:** The Final action on all proposed code changes shall be published as soon as practicable after the determination of final action. The exact wording of any resulting text modifications shall be made available to any interested party.

8.0 Appeals

8.1 **Right to Appeal:** Any person may appeal an action or inaction in accordance with CP-1.

2012 ICC CODE DEVELOPMENT CYCLE
CROSS INDEX OF PROPOSED CODE CHANGES

Some of the proposed code changes include sections that are outside of the scope of the chapters or the code listed in the table of 2012/2013 Staff Secretaries on page x. This is done in order to facilitate coordination among the International Codes which is one of the fundamental principles of the International Codes.

Listed in this cross index are proposed code changes that include sections of codes or codes other than those listed on page ix. For example, IBC Section 703.2.3 is proposed for revision in code change S70-12, which is to be heard by the IBC Structural Committee. This section of the IBC is typically the responsibility of the IBC Fire Safety Committee as listed in the table of 2012/2013 Staff Secretaries. It is therefore identified in this cross index. Another example is Section 905.4 of the International Fire Code. The International Fire Code is normally maintained by the IFC Committee, but Section 905.4 will be considered for revision in proposed code change E4-12 which will be placed on the IBC Means of Egress Committee agenda. In some instances, there are other subsections that are revised by an identified code change that is not included in the cross index. For example, numerous sections in Chapter 10 of the International Fire Code would be revised by the proposed changes to Chapter 10 of the IBC. This was done to keep the cross index brief enough for easy reference.

This information is provided to assist users in locating all of the proposed code changes that would affect a certain section or chapter. For example, to find all of the proposed code changes that would affect Chapter 7 of the IBC, review the proposed code changes in the portion of the monograph for the IBC Fire Safety Committee (listed with a FS prefix) then review this cross reference for Chapter 7 of the IBC for proposed code changes published in other code change groups. While care has been taken to be accurate, there may be some omissions in this list.

Letter prefix: Each proposed change number has a letter prefix that will identify where the proposal is published. The letter designations for proposed changes and the corresponding publications are as follows:

PREFIX	PROPOSED CHANGE GROUP (see monograph table of contents for location)
ADM	Administrative
E	International Building Code - Means of Egress
EB	International Existing Building Code
CE	International Energy Conservation Code – Commercial
RE	International Energy Conservation Code – Energy
F	International Fire Code
FG	International Fuel Gas Code
FS	International Building Code - Fire Safety
G	International Building Code – General
GEW	International Green Construction Code – Energy/Water
GG	International Green Construction Code – General
M	International Mechanical Code
PC	ICC Performance Code
P	International Plumbing Code
PSD	International Private Sewage Disposal Code
PM	International Property Maintenance Code
RE	International Residential Code - Building
RM	International Residential Code - Mechanical
RP	International Residential Code - Plumbing
S	International Building Code – Structural
SP	International Swimming Pool and Spa Code
WUIC	International Wildland-Urban Interface Code
Z	International Zoning Code

International Building Code		907.2.10.1	G71
		907.2.13.2	E4
101.4	G201	907.5.2.2	E4
101.4.7 (New)	G201	909.4.6	G32 Part II
104.11.3 (New)	FS73	909.9	S70
107.2.6	G198	909.18	S113, S117
110.3.5	S304	909.20	E4, E5
116.5	G201	909.21.7	S113
202	P27, P29	911.1.5	E4
403.5	E4, E7	1003.2	G62
404.6	FS41, FS99	Table 1004.1.2	G193
405.7.1	E3	1004.3	S90
410.6.1	E3	1005.7.2	G73
411.7	E3	1007.1	G237
414.7.2	E3	1007.6	G57
505.2.3	E7	1009.3	FS51, FS99
505.3	E101	1015.2.1	G85
703.2.3	S70	1015.4	G57
706.1	G103	1015.5	G57
707.5.1	E7	Table 1016.2	G32 Part I, G87
707.6	E4	1018.1	G31 Part I
707.7.1	E4	Table 1018.1	G32 Part I
709.5	G31 Part I	Table 1018.2	G32 part I
710.8	G32 Part I	1018.4	G32 Part I
711.4	E7	Table 1021.2(2)	G57
712.1.8	G32 Part I, G54, E7	1022.7	G85
712.1.12	E7	1027.1	G175
713.1	E4, E7	1203.1	M36, M37, M38, M39
713.14.1	G32 Part I, E110	1205.4	E4
713.14.1.2 (new)	G174 Part III	1207.1	E4
Table 716.5	G51, E4	1403.7	S102, S103
716.5.3	E3	1404.13 (New)	S309
717.5.5	G32 Part I	1507.16	G98
718.2.4	E4	1507.16.1	G98
722.5	S238	1508.1	FS178
Table 803.9	E4	1609.1.2	G199
901.5	S90	1808.7.3	G193
903.2.6	G31 Part II, G32 Part II	2103.15(New)	FS177
903.2.8	G31 Part II	2110.1.1	E4
903.2.8.1	G31 Part II	2303.1.4 (new)	G142 Part II
903.2.8.2 (new)	G31 Part II	2308.12.7	E4
903.2.8.2	G31 Part II	2405.3	G199
903.2.8.3 (new)	G31 Part II	2406.4	G193
903.3.1.3	G31 Part II	2406.4.5	G193
903.3.2	G32 Part II	2406.4.6	E4
905.3.3	E4	2406.4.7	E4
905.4	E4	2607.4	G199
906.2	G71	2609.4	G193, G199
Table 906.3(1)	G71	Table 2902.1.2 (New)	P27
Table 906.3(2)	G71	2902.2	P34
907.2.6	G32 Part II, G71	2902.3	P35
907.2.6.1	G31 Part II	2902.3.1	P36
907.2.6.4 (new)	G32 Part II	2902.3.5	P37

International Building Code (continued)		1003.2	G62
		Table 1004.1.2	G193
2902.4.1	P39	1005.7.2	G73
2902.6 (New)	P30	1007.1	G237
Table 2902.1.2 (New)	P27	1007.6	G57
3007.7	E110	1015.2.1	G85
3007.9	FS138	1015.4	G57
3008.7	E110	1015.5	G57
3008.9	FS138	Table 1016.2	G32 Part I, G87
3111.1	S3	1018.1	G31 Part I
3306.8	S90	Table 1018.1	G32 Part I
3311.1	E4	Table 1018.2	G32 part I
3401.2	S90	1018.4	G32 Part I
3406.1.3	E4	Table 1021.2(2)	G57
3406.4	E4	1022.7	G85
3411.8.4	E4	1027.1	G175
3411.8.15	E211	1104.6.1	E4
International Fire Code		1104.9	E4
		1104.10	E4
202	G1, G2, G11, G13, G31 Part I, G32 Part I, G43, G70	1104.12	E4
Definition of Group A	G27	1104.16	E4
Definition of Group B	G28, G29, G30	1104.20	E4
Definition of Group E	G27	1104.21	E4
Definition of Group I	G31 Part I, G32 Part I, G33, G34, G35, G36, G37	1104.23	E4
Definition of Group R	G31 Part I, G34, G36, G38, G39, G40, G41	3313.1	E4
Definition of Group S	G42	5005.4.4	E3
508.1.5	E4	5704.2.9.4	E4
604.2.16 (new)	G77	5706.5.1.12	E4
903.2.6	G31 Part II, G32 Part II	**INTERNATIONAL PLUMBING CODE**	
903.2.8	G31 Part II		
903.2.8.1	G31 Part II	202	G8, G193 Part IV, P3(HEARD BY IBC-S)
903.2.8.2 (new)	G31 Part II	309.2	P20 (HEARD BY IBC-S)
903.2.8.2	G31 Part II	403.3.3	G71
905.3.3	E4	403.3.4	G71
905.4	E4	403.5	G71
903.2.8.3 (new)	G31 Part II	423.1	G193 Part IV
903.3.1.3	G31 Part II	612.1	G193 Part IV
903.3.2	G32 Part II	801.1	G193 Part IV
906.2	G71	802.1.4	G193 Part IV
Table 906.3(1)	G71	**INTERNATIONAL MECHANICAL CODE**	
Table 906.3(2)	G71		
907.2.6	G32 Part II, G71	202	G8
907.2.6.1	G31 Part II	304.11	E108
907.2.6.4 (new)	G32 Part II	306.5.1	E4
907.2.10.1	G71	403.2.1	G193 Part II
907.2.13.2	E4	Table 403.3	G193 Part II
907.5.2.2	E4	601.3	E228, E229
909.4.6	G32 Part II	901.5	FG3

INTERNATIONAL MECHANICAL CODE (continued)		406.1	G225, G226
		410.5.1(new)	G235
901.6	FG3	410.6	G235, G236, G237
926.2	FG38	410.7	G237, G238, G240
926.3	FG38	410.7.1	G240
1107.2	E4	410.8	G239, E211
1401.1	G193 Part II	410.8 (new)	G237
INTERNATIONAL FUEL GAS CODE		410.8.1 (new)	G237
		410.8.4	G241
202	G8	410.8.6	G242
306.5.1	E4	410.8.9	G235, G236
614.6	M71	410.8.11	G243
Section 617	G193 Part III	606.2.2	G221 Part II
617.1	G193 Part III	606.2.3.1	G224 Part II
629.1	M169	907.2	G213 Part II
INTERNATIONAL PRIVATE SEWAGE DISPOSAL CODE		907.2.1	G213 Part II
		907.2.2	G213 Part II
		1401.2	G244
202	G8, P228 (HEARD BY IBC-S)	1401.2.5	G245
401.3.2	G193 Part IV	1401.3.2	G246
Table 406.1	G193 Part IV	Table 1401.3.2(new)	G246
Table 604.1(2)	G193 Part IV	1401.6	G244
Table 802.7.2	G193 Part IV	1401.6.1	G101
Table 802.8	G193 Part IV	1401.6.1.1	G101
INTERNATIONAL EXISTING BUILDING CODE		1401.6.2	G101, G244
		1401.6.2.1	G101
Chapters 3 through 14	G205	1401.6.4	G244
202	G23, G24	Table 1401.6.4	G244
402.1	G210	1401.6.5	G244
402.4	G211	Table 1401.6.5	G57, G244
403.1	G210, G212	1401.6.6	G51
403.3 (new)	G213 Part I	1401.6.7	G244
403.3.1 (new)	G213 Part I	1401.6.8	G244
403.3.2 (new)	G213 Part I	Table 1401.6.8	G244
403.3.3 (new)	G213 Part I	1401.6.8.1	G244
403.4	G211	1401.6.9	G244
403.4.1(new)	G214	Table 1401.6.9	G244
403.4.5 (new)	G215, G216, G217	1401.6.10	G244
403.5 (new)	G218	Table 1401.6.10	G244
403.7 (new)	G219	1401.6.11	G244
403.7.1(new)	G219	Table 1401.6.11	G244
403.7.2(new)	G219	1401.6.12	G244
403.7.3(new)	G219	Table 1401.6.12	G244
404.1	G212	1401.6.12.1	G244
404.2 (new)	G220	1401.6.16	G244
404.2	G221 Part I	1401.6.16.1	G244
404.2.1	G211	1401.6.17	G244
404.2.2	G222	Table 1401.6.17	G244
404.3	G223	1401.6.18	G244
404.3.1	G224 Part I	Table 1401.6.18	G244
404.4	G222	1401.6.20 (new)	G244
404.2.3	G211, G212	Table 1401.6.20 (new)	G244
404.5	G212	1401.6.21 (new)	G244

INTERNATIONAL EXISTING BUILDING CODE (continued)	
Table 1401.6.21.1 (new)	G244
1401.6.21.1.1(new)	G244
1401.6.21.2(new)	G244
Table 1401.6.21.2(new)	G244
1401.6.21.2.1(new)	G244
1401.6.21.3(new)	G244
Table 1401.6.21.3	G244
1401.6.21.3.1(new)	G244
Table 1401.7	G244
1401.8	G244
Table 1401.8	G244

2012 GROUP A CODE DEVELOPMENT HEARING SCHEDULE
April 29 – May 8, 2012
Sheraton Dallas Hotel

Unless noted by "Start no earlier than X am," each Code Committee will begin immediately upon completion of the hearings for the prior Committee. Thus the actual start times for the various Code Committees are tentative. The hearing volume is higher than previous cycles. The schedule anticipates that the hearings will finish by the times noted as "Finish" for each track.

Please note that the hearing start on Sunday, April 29th has been revised from 10:00 am to 12:00 pm from the originally posted version. Prior to the hearings starting at noon on Sunday, the following is also scheduled:

- Membership Councils: 8:00 am – 10:00 am
- CDP ACCESS update (Expanding code development participation): 10:15 am – 11:15 am

For more information on the scheduling of these two activities, be sure to check the link to the Member Committees page on the ICC Website: http://www.iccsafe.org/membership/pages/committees.aspx

	Sunday April 29	Monday April 30	Tuesday May 1	Wednesday May 2	Thursday May 3
TRACK 1	Start 12 pm IBC - FS End 9 pm	Start 8 am IBC - FS End 9 pm	Start 8 am IBC - FS IBC – G (Start no earlier than 8 am) End 9 pm	Start 8 am IBC - G End 9 pm	Start 8 am IBC – G IBC - E (Start no earlier than 8 am) End 9 pm
TRACK 2	Start 12 pm IFGC IPC/IPSDC End 9 pm	Start 8 am IPC/IPSDC End 9 pm	Start 8 am IPC/IPSDC IMC (Start no earlier than 8 am) End 9 pm	Start 8 am IMC End 9 pm	Start 8 am IMC IEBC – S (Start no earlier than 8 am) IBC – S End 9 pm

	Friday May 4	Saturday May 5	Sunday May 6	Monday May 7	Tuesday May 8
TRACK 1	Start 8 am IBC - E End 9 pm	Start 8 am IBC – E End 9 pm	Start 8 am IBC – E Finish 12 pm		
TRACK 2	Start 8 am IBC - S End 9 pm	Start 8 am IBC - S End 9 pm	Start 8 am IBC - S End 9 pm	Start 8 am IBC - S End 9 pm	Start 8 am IBC – S Finish 12 pm

Notes:
1. IEBC – S: Structural provisions in the IEBC to be heard by the IBC – Structural Code Committee.
2. Hearing times may be modified at the discretion of the Chairman.
3. Breaks will be announced. Lunch and dinner breaks planned for each track. There will not be a lunch break on Sunday, April 29th.

2012 PROPOSED CHANGES TO THE INTERNATIONAL CODES

CODE **PAGE**

International Building Code
- **Fire Safety** FS1
- **General** G1
- **Means of Egress** E1
- **Structural (Including portions of International Existing Building Code)** S1

International Fuel Gas Code FG1

International Plumbing Code P1

International Mechanical Code M1

Code Correlation Committee CCC1

2012 PROPOSED CHANGES TO THE INTERNATIONAL BUILDING CODE – MEANS OF EGRESS

MEANS OF EGRESS CODE COMMITTEE

Stephen Thomas, CBO - *Chair*
Building Official
Cherry Hills Village
Denver, CO

Jim Budzinski – *Vice Chair*
Fire Chief
Lake Worth, FL

Jason Averill
Supervisory Fire Protection Engineer
National Institute of Standards & Technology
Gaithersburg, MD

Charles V. Barlow
Sales Manager
EverGlow NA, Inc.
Matthews, NC

William J. Bechtold
Senior Building Official
Northern Kentucky Area Planning Comm.
Fort Mitchell, KY

J. David Carter, AIA
Principal (Emeritus)
Sherman, Carter, Barnhart Architects
Lexington, KY

James R. Dawson, Jr.
Fire Marshal/Battalion Chief
Chesterfield County Fire and EMS
Chesterfield, VA

Foy Gadberry
Rep: National Association of Home Builders
Owner
Inspections Unlimited
West Monroe, LA

Jeffrey S. Grove, PE
Operations Manager
Rolf Jensen & Associates, Inc.
Las Vegas, NV

Jeffrey Heiss
Construction Official
Township of Warren
Warren, NJ

Gary Lampella
Building Official
City of Redmond
Redmond, OR

Larry Lehman
Building Division Chief
State of Michigan
Michigan Dept. of Energy, Labor & Economic Growth
Lansing, MI

Paul D. Martin
Rep: National Association of State Fire Marshals
Chief, Inspections and Investigations branch
New York State Office of Fire Prevention and Control
Albany, NY

Andrew Stuffler, CBO
Chief Building Official
City of Ventura (San Buenaventura)
Ventura, CA

Armin Wolski, PE
Associate Principal
Arup North America Ltd
San Francisco, CA

Staff Secretariat
Kimberly Paarlberg, RA
Senior Staff Architect
Codes and Standards Development
ICC Indiana Field Office
Carmel, IN

TENTATIVE ORDER OF DISCUSSION
2012 PROPOSED CHANGES TO THE INTERNATIONAL BUILDING CODE

MEANS OF EGRESS

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation **does not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair. Note that some IBC-E code change proposals may not be included on this list, as they are being heard by other committees. Please consult the Cross Index of Proposed Changes.

E96-12: NUMBER NOT USED

E1-12
G57-12
G68-12
E2-12
E3-12
G85-12
E4-12
G52-12
E5-12
G9-12
G51-12
E6-12
E9-12
E10-12
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E12-12
E13-12
E16-12
E17-12
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G72-12
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E116-12
E117-12
G87-12
G58-12
G71-12
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E221-12
E222-12
E223-12
E224-12
G234-12
G235-12
G236-12
G237-12
G238-12
G239-12
G240-12
G241-12
G242-12
G243-12
E226-12
E227-12

E1-12

202, 1006 (New), 1007 (New), 1014.3, 1015, 1020.1, 1021 (IFC [B] 1006 (New), 1007 (New), 1014.3, 1015, 1020.1, 1021)

Proponent: Charles S. Bajnai, Chesterfield County, VA, ICC Building Code Action Committee

Revise as follows:

SECTION 202
DEFINITIONS

COMMON PATH OF EGRESS TRAVEL. That portion of the exit access travel distance measured from the most remote point within a story to that point where ~~which~~ the occupants ~~are required to traverse before two~~ have separate and distinct ~~paths of egress travel~~ access to two exits or exit access doorways ~~are available. Paths that merge are common paths of travel. Common paths of egress travel shall be included within the permitted travel distance.~~

Revise as follows:

~~**1014.3 (IFC [B] 1014.3) Common path of egress travel.** The common path of egress travel shall not exceed the common path of egress travel distances in Table 1014.3.~~

~~**TABLE 1014.3 (TABLE [B] 1014.3)**~~
~~**COMMON PATH OF EGRESS TRAVEL**~~

~~OCCUPANCY~~	~~WITHOUT SPRINKLER SYSTEM (feet)~~		~~WITH SPRINKLER SYSTEM (feet)~~
	~~Occupant Load~~		
	~~OL ≤ 30~~	~~OL > 30~~	
~~B, S[d]~~	~~100~~	~~75~~	~~100[a]~~
~~U~~	~~100~~	~~75~~	~~75[a]~~
~~F~~	~~75~~	~~75~~	~~100[a]~~
~~H-1, H-2, H-3~~	~~Not Permitted~~	~~Not Permitted~~	~~25[a]~~
~~R-2~~	~~75~~	~~75~~	~~125[b]~~
~~R-3[e]~~	~~75~~	~~75~~	~~125[b]~~
~~I-3~~	~~100~~	~~100~~	~~100[a]~~
~~All others[e]~~	~~75~~	~~75~~	~~75[a,b]~~

~~For SI: 1 foot = 304.8 mm.~~

~~a. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.~~
~~b. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where automatic sprinkler systems are permitted in accordance with Section 903.3.1.2.~~
~~c. For a room or space used for assembly purposes having fixed seating, see Section 1028.8.~~
~~d. The length of a common path of egress travel in a Group S-2 open parking garage shall not be more than 100 feet (30 480 mm)~~
~~e. The length of a common path of egress travel in a Group R-3 occupancy located in a mixed occupancy building.~~
~~f. For the distance limitations in Group I-2, see Section 407.4.~~

SECTION ~~1015~~ 1006 (IFC [B] ~~1015~~ 1006)
NUMBERS OF EXITS AND EXIT ACCESS DOORWAYS

~~**1015.1**~~ **1006.1 (IFC [B] ~~1015.1~~ 1006.1) General** ~~**Exits or exit access doorways from spaces.**~~ The number of exits or exit access doorways required within the means of egress system shall comply with the provisions of Section 1006.2 for spaces and Section 1006.3 for stories. ~~Two exits or exit access doorways from any space shall be provided where one of the following conditions exists:~~

~~1. The *occupant load* of the space exceeds one of the values in Table 1015.1.~~

~~**Exceptions:**~~

1. ~~In Group R-2 and R-3 occupancies, one *means of egress* is permitted within and from individual dwelling units with a maximum *occupant load* of 20 where the dwelling unit is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.~~
2. ~~Care suites in Group I-2 occupancies complying with Section 407.4.3.~~

2. ~~The *common path of egress travel* exceeds one of the limitations of Section 1014.3.~~
3. ~~Where required by Section 1015.3, 1015.4, 1015.5, or 1015.6.~~

~~Where a building contains mixed occupancies, each individual occupancy shall comply with the applicable requirements for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1.~~

~~**TABLE 1015.1 (IFC [B] TABLE 1015.1)**~~
~~**SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY**~~

~~**OCCUPANCY**~~	~~**MAXIMUM OCCUPANT LOAD**~~
~~A, B, E, F, M, U~~	~~49~~
~~H-1, H-2, H-3~~	~~3~~
~~H-4, H-5, I-1, I-2, I-3, I-4, R~~	~~10~~
~~S~~	~~29~~

1006.2 (IFC [B] 1006.2) Egress from spaces. Rooms, areas or spaces, including mezzanines, within a story or basement shall be provided with the number of exits or access to exits in accordance with this section.

1006.2.1 (IFC [B] 1006.2.1) Egress based on occupant load and common path of egress travel distance. Two exits or exit access doorways from any space shall be provided where the design occupant load or the common path of egress travel distance exceeds the values listed in Table 1006.2.1.

Exceptions:

1. In Group R-2 and R-3 occupancies, one *means of egress* is permitted within and from individual dwelling units with a maximum *occupant load* of 20 where the dwelling unit is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 and the common path of egress travel does not exceed 125 feet (38 100 mm).
2. Care suites in Group I-2 occupancies complying with Section 407.4.

TABLE 1006.2.1 (IFC [B] 1006.2.1)
SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY

OCCUPANCY	**MAXIMUM OCCUPANT LOAD OF SPACE**	**MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE (feet)**		
		WITHOUT SPRINKLER SYSTEM		**WITH SPRINKLER SYSTEM**
		Occupant Load		
		OL ≤ 30	**OL > 30**	
A[a], E, M, U	49	75	75	75[b]
B	49	100	75	100[b]
F	49	75	75	100[b]
H-1, H-2, H-3	3	NP	NP	25[b]
H-4, H-5, I-1, I-2, I-4, R-1, R-3,	10	NP	NP	75[b]

OCCUPANCY	MAXIMUM OCCUPANT LOAD OF SPACE	MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE (feet)		
		WITHOUT SPRINKLER SYSTEM		WITH SPRINKLER SYSTEM
		Occupant Load		
		OL ≤ 30	OL > 30	
R-4				
I-3	10	NP	NP	100[b]
R-2	10	NP	NP	125[c]
R-3	10	NP	NP	125[d]
S	29	100	75[e]	100[b]
U	49	100	75	75[b]

For SI: 1 foot = 304.8 mm.
NP – Not Permitted

a. For a room or space used for assembly purposes having fixed seating, see Section 1028.8.
b. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where automatic sprinkler systems are permitted in accordance with Section 903.3.1.2.
d. The length of common path of egress travel distance in a Group R-3 occupancy located in a mixed occupancy building shall be not more than 125 feet (38 100 mm).
e. The length of common path of egress travel distance in a Group S-2 open parking garage shall be not more than 100 feet (30 480 mm).

~~1015.1.1~~ 1006.2.1.1 (IFC [B] ~~1015.1.1~~ 1006.2.1.1) Three or more exits or exit access doorways. Three exits or exit access doorways shall be provided from any space with an occupant load of 501-1,000. Four exits or exit access doorways shall be provided from any space with an occupant load greater than 1,000.

~~1015.2 (IFC [B] 1015.2) Exit or exit access doorway arrangement.~~ *(relocated to new Section 1007)*

~~1015.2.1 (IFC [B] 1015.2.1) Two exits or exit access doorways.~~ *(relocated to new Section 1007)*

~~1015.2.2 (IFC [B] 1015.2.2) Three or more exits or exit access doorways.~~ *(relocated to new Section 1007)*

1006.2.2 (IFC [B] 1006.2.2) Egress based on use. The numbers of exits or access to exits shall be in accordance with this section.

~~1015.3~~ 1006.2.2.1 (IFC [B] ~~1015.3~~ 1006.2.2.1) Boiler, incinerator and furnace rooms. Two *exit access doorways* are required in boiler, incinerator and furnace rooms where the area is over 500 square feet (46 m^2) and any fuel-fired equipment exceeds 400,000 British thermal units (Btu) (422 000 KJ) input capacity. Where two *exit access doorways* are required, one is permitted to be a fixed ladder or an *alternating tread device*. *Exit access doorways* shall be separated by a horizontal distance equal to one-half the length of the maximum overall diagonal dimension of the room.

~~1015.4~~ 1006.2.2.2 (IFC [B] ~~1015.4~~ 1006.2.2.2) Refrigeration machinery rooms. Machinery rooms larger than 1,000 square feet (93 m^2) shall have not less than two *exits* or *exit access* doors. Where two *exit access doorways* are required, one such doorway is permitted to be served by a fixed ladder or an *alternating tread device*. *Exit access doorways* shall be separated by a horizontal distance equal to one-half the maximum horizontal dimension of room.

All portions of machinery rooms shall be within 150 feet (45 720 mm) of an *exit* or *exit access doorway*. An increase in travel distance is permitted in accordance with Section 1016.1.

Doors shall swing in the direction of egress travel, regardless of the *occupant load* served. Doors shall be tight fitting and self-closing.

~~1015.5~~ 1006.2.2.3 **(IFC [B] ~~1015.5~~ 1006.2.2.3) Refrigerated rooms or spaces.** Rooms or spaces having a floor area larger than 1,000 square feet (93 m^2), containing a refrigerant evaporator and maintained at a temperature below 68°F (20°C), shall have access to not less than two *exits* or *exit access* doors.

Travel distance shall be determined as specified in Section 1016.1, but all portions of a refrigerated room or space shall be within 150 feet (45 720 mm) of an *exit* or *exit access* door where such rooms are not protected by an *approved automatic sprinkler* system. Egress is allowed through adjoining refrigerated rooms or spaces.

Exception: Where using refrigerants in quantities limited to the amounts based on the volume set forth in the *International Mechanical Code*.

~~1015.6~~ 1006.2.2.4 **(IFC [B] ~~1015.6~~ 1006.2.2.4) Day care facilities.** Day care facilities, rooms or spaces where care is provided for more than 10 children that are 2-1/2 years of age or less, shall have access to not less than two exits or exit access doorways.

~~**SECTION 1021 (IFC [B] 1021)**~~
~~**NUMBER OF EXITS AND EXIT CONFIGURATION**~~

~~**1021.3.1 (IFC [B]1021.3.1)**~~ **1006.3 (IFC [B] 1006.3)** ~~**Access to exits at adjacent levels.**~~ **Egress from stories or occupied roofs** The means of egress system serving any story or occupied roof shall be provided with the number of exits or access to exits based on the aggregate occupant load served in accordance with this section. Access to exits at other levels shall be by stairways or ramps. Where access to exits occurs from adjacent building levels, the horizontal and vertical exit access travel distance to the closest exit shall not exceed that specified in Section 1016.1. Access to exits at other levels shall be from an adjacent story.

Each story above the second story of a building shall have a minimum of one interior or exterior exit stairway, or interior or exterior exit ramp. Where a minimum of three or more exits, or access to exits are required, a minimum of 50 percent of the required exits shall be interior or exterior exit stairways or ramps.

~~**Exception:** Landing platforms or roof areas for helistops that are less than 60 feet (18 288 mm) long, or less than 2,000 square feet (186 m^2) in area, shall be permitted to access the second exit by a fire escape, alternating tread device or ladder leading to the story or level below.~~

Exceptions:

1. Interior exit stairways and interior exit ramps are not required in open parking garages where the means of egress serves only the open parking garage.
2. Interior exit stairways and interior exit ramps are not required in outdoor facilities where all portions of the means of egress are essentially open to the outside.

~~**1021.1 (IFC [B] 1021.10)**~~ **1006.3.1 (IFC [B] 1006.3.1)** ~~**General.**~~**Egress based on occupant load.** Each story and occupied roof shall have the minimum number of exits, or access to exits, as specified in Table 1006.3.1 ~~this section~~. A single exit or access to a single exit shall be permitted in accordance with Section 1006.3.3. The required number of exits, or exit access stairways or ramps providing access to exits, from any story shall be maintained until arrival at the exit discharge ~~grade~~ or ~~a~~ public way. ~~Exits or access to exits from any story shall be configured in accordance with this section. Each story above the second story of a building shall have a minimum of one interior or exterior exit stairway, or interior or exterior exit ramp. At each story above the second story that requires a minimum of three or more exits, or access to exits, a minimum of 50 percent of the required exits shall be interior or exterior exit stairways, or interior or exterior exit ramps.~~

~~**Exceptions:**~~

1. ~~Interior exit stairways and interior exit ramps are not required in open parking garages where the means of egress serves only the open parking garage.~~
2. ~~Interior exit stairways and interior exit ramps are not required in outdoor facilities where all portions of the means of egress are essentially open to the outside.~~

TABLE 1006.3.1 (IFC [B] TABLE 1006.9.3.1)
MINIMUM NUMBER OF EXITS OR ACCESS TO EXITS PER STORY

OCCUPANT LOAD PER STORY	MINIMUM NUMBER OF EXITS OR ACCESS TO EXITS FROM STORY
1-500	2
501-1,000	3
More than 1,000	4

~~**1021.2.4 (IFC [B] 1021.2.4) Three or more exits.** Three *exits*, or *exit access stairways* or *ramps* providing access to *exits* at other stories, shall be provided from any story or occupied roof with an *occupant load* from 501 to and including 1,000. Four *exits*, or *exit access stairways* or *ramps* providing access to *exits* at other stories, shall be provided from any story or occupied roof with an *occupant load* greater than 1,000.~~

~~**1021.2.5**~~ **1006.3.2 (IFC [B]** ~~**1021.2.5**~~ **1006.3.2) Additional exits.** In buildings over 420 feet in height, additional exits shall be provided in accordance with Section 403.5.2.

~~**1021.2**~~ **1006.3.3 (IFC [B]** ~~**1021.2**~~ **1006.3.3) Single exits** ~~**Exits from stories.** Two exits, or exit access stairways or ramps providing access to exits, from any story or occupied roof shall be provided~~ A single exit or access to a single exit shall be permitted from any story or occupied roof, where one of the following conditions exists:

1. The occupant load or number of dwelling units ~~exceeds one of~~ and common path of egress travel distance does not exceed the values in Table 1006.3.3(1) or 1006.3.3(2) ~~1021.2(1) or 1021.2(2).~~
2. ~~The exit access travel distance exceeds that specified in Table 1021.2(1) or 1021.2(2) as determined in accordance with the provisions of Section 1016.1.~~
3. ~~Helistop landing areas located on buildings or structures shall be provided with two exits, or exit access stairways or ramps providing access to exits.~~

~~**Exceptions:**~~

~~1~~2. Rooms, areas and spaces complying with Table 1006.2.1 ~~Section 1015.1~~ with exits that discharge directly to the exterior at the level of exit discharge, are permitted to have one exit.
~~2~~3. Group R-3 occupancy buildings shall be permitted to have one exit.
~~3~~4. Parking garages where vehicles are mechanically parked shall be permitted to have one exit or access to a single exit.
~~4~~5. Air traffic control towers shall be provided with the minimum number of exits specified in Section 412.3.
~~5. Individual dwelling units in compliance with Section 1021.2.3.~~
6. Group R-3 and R-4 congregate residences shall be permitted to have one exit.
~~7. Exits serving specific spaces or areas need not be accessed by the remainder of the story when all of the following are met:~~
   ~~7.1 The number of exits from the entire story complies with Section 1021.2.4;~~
   ~~7.2 The access to exits from each individual space in the story complies with Section 1015.1, and~~
   ~~7.3 All spaces within each portion of a story shall have access to the minimum number of approved independent exits based on the occupant load of that portion of the story, but not less than two exits.~~

~~**1021.2.3 (IFC [B] 1021.2.3) Single-story or multi-story dwelling units.**~~

7. Individual single-story or multi-story dwelling units shall be permitted to have a single exit or access to a single exit from the dwelling unit provided that all of the following criteria are met:
   7.1.~~1.~~ The dwelling unit complies with Section ~~1015.1~~ 1006.2.1 as a space with one means of egress and
   7.2.~~2.~~ Either the exit from the dwelling unit discharges directly to the exterior at the level of exit discharge, or the exit access outside the dwelling unit's entrance door provides access to not less than two approved independent exits.

~~TABLE 1021.2(1)~~ TABLE 1006.3.3(1) (IFC [B] ~~TABLE 1021.2(1)~~ TABLE 1006.3.3(1))
STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR R-2 OCCUPANCIES

STORY	OCCUPANCY	MAXIMUM NUMBER OF DWELLING UNITS	MAXIMUM COMMON PATH OF EGRESS ~~EXIT ACCESS~~ TRAVEL DISTANCE (feet)
Basement, first, second or third story above grade plane	R-2[a, b]	4 dwelling units	125 ~~feet~~
Fourth story ~~and~~ above grade plane and higher	NP	NA	NA

For SI: 1 foot = 3048 mm.
NP – Not Permitted
NA – Not Applicable
a. Buildings classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with emergency escape and rescue openings in accordance with Section 1029.
b. This table is used for Group R-2 occupancies consisting of dwelling units. For Group R-2 occupancies consisting of sleeping units, use Table 1006.3.3(2) ~~1021.2(2)~~..

~~TABLE 1021.2(2)~~ TABLE 1006.3.3(2) (IFC [B] ~~TABLE 1021.2(2)~~ TABLE 1006.3.3(2))
STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR OTHER OCCUPANCIES

STORY	OCCUPANCY	MAXIMUM OCCUPANT~~S~~ LOAD PER STORY	MAXIMUM COMMON PATH OF EGRESS ~~EXIT ACCESS~~ TRAVEL DISTANCE (feet)
First story above or ~~basement~~ below grade plane	A, B[a], E F[a], M, U, S[a]	49 ~~occupants~~	75 ~~feet~~
	H-2, H-3	3 ~~occupants~~	25 ~~feet~~
	H-4, H-5, I, R-1, R-2[b,c], R-4	10 ~~occupants~~	75 ~~feet~~
	S	29 ~~occupants~~	100 ~~feet~~
Second story above grade plane	B, F, M, S	29 ~~occupants~~	75 ~~feet~~
Third story ~~and~~ above grade plane and higher	NP	NA	NA

For SI: 1 foot = 304.8 mm.
NP – Not Permitted
NA – Not Applicable
a. Group B, F and S occupancies in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 shall have a maximum travel distance of 100 feet.
b. Buildings classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with emergency escape and rescue openings in accordance with Section 1029.
c. This table is used for Group R-2 occupancies consisting of sleeping units. For Group R-2 occupancies consisting of dwelling units, use Table 1006.3.3(1) ~~1021.2(1)~~..

~~1021.2.1~~ 1006.3.3.1 **(IFC [B] ~~1021.2.1~~ 1006.3.3.1) Mixed occupancies.** Where one exit, or exit access stairway or ramp providing access to exits at other stories, is permitted to serve individual stories, mixed occupancies shall be permitted to be served by single exits provided each individual occupancy complies with the applicable requirements of Table 1006.3.3(1) ~~1021.2(1)~~ or Table 1006.3.3(2) ~~1021.2(2)~~ for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1. In each story of a mixed occupancy building, the maximum number of occupants served by a single exit shall be such that the sum of the ratios of the calculated number of occupants of the space divided by the allowable number of occupants for each occupancy does not exceed one.

~~1021.2.2~~ 1006.3.4 **(IFC [B] ~~1021.2.2~~ 1006.3.4) Basements.** A basement provided with one exit shall not be located more than one story below grade plane.

~~**1021.3 (IFC [B] 1021.3) Exit configuration.** Exits, or exit access stairways or ramps providing access to exits at other stories, shall be arranged in accordance with the provisions of Section 1015.2 through 1015.2.2. Exits shall be continuous from the point of entry into the exit to the exit discharge.~~

~~1021.4~~ 1006.3.5 **(IFC [B] ~~1021.4~~ 1006.3.5) Vehicular ramps.** Vehicular ramps shall not be considered as an exit access ramp unless pedestrian facilities are provided.

1006.3.6 (IFC [B] 1006.3.6) Helistop Platforms. Helistop landing areas located on buildings or structures shall be provided with two exits, or exit access stairways or ramps providing access to exits.

> **Exception:** Landing platforms or roof areas for helistops that are less than 60 feet (18 288 mm) long, or less than 2,000 square feet (186 m^2) in area, shall be permitted to access the second exit by a fire escape, alternating tread device or ladder leading to the story or level below.

SECTION 1007(IFC [B] 1007)
EXIT AND EXIT ACCESS DOORWAY CONFIGURATION

~~1015.2~~ 1007.1 **(IFC [B] ~~1015.2~~ 1007.1) General** ~~**Exit or exit access doorway arrangement.**~~ Exits and exit access doorways serving spaces, including individual building stories, shall be separated in accordance with the provisions of this section. ~~Required *exits* shall be located in a manner that makes their availability obvious. *Exits* shall be unobstructed at all times. *Exit* and *exit access doorways* shall be arranged in accordance with Sections 1015.2.1 and 1015.2.2.~~

~~1015.2.1~~ 1007.1.1 **(IFC [B] ~~1015.2.1~~ 1007.1.1) Two exits or exit access doorways.** Where two *exits* or *exit access doorways* are required from any portion of the *exit access*, the *exit* doors or *exit access doorways* shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the story or area to be served measured in a straight line between *exit* doors or *exit access doorways*. Interlocking or *scissor stairs* shall be counted as one *exit stairway*.

Exceptions:

1 ~~2~~. Where a building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2, the separation distance of the *exit* doors or *exit access doorways* shall not be less than one-third of the length of the maximum overall diagonal dimension of the area served.

2 ~~1~~. Where interior exit stairways are interconnected by a 1-hour fire-resistance-rated corridor conforming to the requirements of Section 1018, the required exit separation shall be measured along the shortest direct line of travel within the corridor.

~~1015.2.2~~ 1007.1.2 **(IFC [B] ~~1015.2.2~~ 1007.1.2) Three or more exits or exit access doorways.** Where access to three or more *exits* is required, at least two *exit* doors or *exit access doorways* shall be arranged in accordance with the provisions of Section 1007.1.1. Additional required exits, or access to exits shall be located a reasonable distance apart such that if one becomes involved, the others will be

available.

1007.2 (IFC [B] 1007.2) Measurement. The required separation distance between exits or exit access doorways shall be measured in accordance with the following:

1. The separation distance to exit or exit access doorways shall be measured to the nearest point along the width of the doorway.
2. The separation distance to exit access stairways shall be measured to the closest riser.
3. The separation distance to exit access ramps shall be measured to the start of the ramp run.

(Renumber remaining sections.)

SECTION 1020 (IFC [B] 1020)
EXITS

1020.1 (IFC [B] 1020.1) General. Exits shall comply with Sections 1020 through 1026 and the applicable requirements of Sections 1003 through 1013. An exit shall not be used for any purpose that interferes with its function as a means of egress. Once a given level of exit protection is achieved, such level of protection shall not be reduced until arrival at the exit discharge. Exits shall be continuous from the point of entry into the exit to the exit discharge.

Reason: This proposal is submitted by the ICC Building Code Action Committee (BCAC) The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 3 open meetings and over 15 workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: http://www.iccsafe.org/cs/BCAC/Pages/default.aspx.

This proposal is a continuation of Item E5-09/10 that was approved for inclusion in the 2012 IBC. That is, the proposal intends to clarify current IBC means of egress requirements resulting in greater user friendliness and increased uniformity in the application of these important provisions.

Currently, both Sections 1015 and 1021 contain provisions for the determination of the number of exits and exit access doorways. The relationship between the two sections is not particularly obvious to many code practitioners. This proposal combines the two sections and places their various provisions in technical context. This is partially achieved through formatting. Section 1015.2 prescribes the provisions for the determination of the number of required exits or exit access to exits from any individual space. Section 1015.3 provides the provisions for the determination of the number of required exits or access to exits from stories or occupied roofs.

Recognizing the importance of tables during the design/review process, improvements were made to improve understanding and consistency. Fundamental to the proper determination of the number of required exits is the consideration of design occupant loads and occupant remoteness. Currently, only Table 1021.2(2) includes both variables (number of occupants per story and exit access travel distance). Section 1015.1 currently addresses the occupant load in Table 1015.1; however, it requires the user to determine occupant remoteness requirements at Section 1014.3 that are indicated as “common path of egress travel.” For the 2012 Edition of the IBC, common path of egress travel provisions have been consolidated into a tabular format. The only remaining text of Section 1014.3 states, “The common path of egress travel shall not exceed the common path of egress travel distances in Table 1014.3,” without contextual reference to Section 1015.1 that requires that two exits or exit access doorways from any space shall be provided where the common path of egress travel exceeds one of the limitations of Section 1014.3. This technical disconnect is repaired through the consolidation of Tables 1015.1 and 1014.3 in a format already contained in Table 1021.1(2). The current difference in occupant remoteness terminology (exit access travel distance vs. common path of egress travel) was resolved in favor of common path of egress travel distance.

To increase consistency in interpretations and application, the definition of “COMMON PATH OF EGRESS TRAVEL” has been modified. The proposed language emphasizes that the common path of egress travel is initially measured identically to exit access travel distance; however, technically terminates at an earlier point (that point where an occupant has separate and distinct access to two exits or exit access doorways vs. to an entrance to an exit). The somewhat vague wording in the current definition results in inconsistent applications of this important provision. It should be noted that the *NFPA 101 Handbook* states that common path of egress travel is a portion of the exit access travel distance. Many rely on that document to interpret IBC requirements. Additionally, the merging provision has been deleted. This is a moot point because once a second exit or exit access doorway (to include any point where an occupant enters an intervening room, corridor, exit access stairway or exit access ramp) is required, it must be separated in accordance with Section 1015.2. In recent code development cycles, many definitions have been edited to more accurately describe means of egress design requirements in context with the IBC system philosophy. This is another example of more accurately describing what is intended.

The establishment of a single method and term for the determination of occupant remoteness will greatly benefit code practitioners. The resultant Table 1006.2.1 is consistent in format, terminology and application to Table 1006.3.3(2) and will result in more accurate and consistent determination of the required number of exits and access to exits.

This proposal deletes current Section 1021.2, Exception 7. This provision was new to the 2009 Edition of the IBC and, according to the proponent’s reason statement, was intended to coordinate the fragmented requirements of Sections 1015 and 1021. The consolidation of the two sections eliminates the need for the provision. The exception can be considered moot because

it represents an exception to a non-requirement. There is no requirement for specific spaces to be accessed by the remainder of the story. The performance nature of number of exits/exit access provisions allows each space to be designed based on its own technical merit on an individual and collective basis. The conditions of the exception simply restate fundamental means of egress provisions. Based on the stated requirements of this proposal, the deleted exception is unnecessary.

Formerly, both Sections 1015 and 1021 contained provisions for the determination of exit/exit access configuration/arrangement/separation. Inasmuch as this issue is a major means of egress design requirement, the provisions have been consolidated into a new stand-alone section, Section 1007. Additionally, separation measurement provisions have been clarified. Currently, there are no specific measurement points for the determination of exit/exit access separation. New Section 1007.2 provides guidance for measuring to doors, exit access stairways and exit access ramps. This will reduce subjectivity in the determination of exit/exit access configuration.

Numbers of exits/exit access doorways and exit/exit access doorway configuration provisions have been located in Sections 1006 and 1007 respectively. This creates a sectional sequence for occupant load based means of egress provisions. Section 1004 covers design occupant load determination. Means of egress sizing requirements based on occupant load are contained in Section 1005. Now, occupant load based numbers requirements are placed in Section 1006 with multiple exit/exit access doorway arrangement provisions following in Section 1007. This logical format should assist designers and enforcement officials alike.

It was also determined that a general exit provision addressing exit continuity is incorrectly located in current Section 1021.3. It has been properly located in Section 1020.1.

In summary, this proposal represents a continuing effort to improve means of egress provisions for the purposes of philosophical functionality, technical consistency and user friendliness. Approval of this proposal will simplify the interpretation and application of IBC means of egress provisions while maintaining the highest traditions of fire and life safety.

Cost Impact: This code change proposal will not increase the cost of construction.

E1-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

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E2-12

PART I – INTERNATIONAL BUILDING CODE

IBC 202, 403.5.1, 403.5.2, 505.3, 707.6, 707.7.1, 713.1, Table 716.5, 718.2.4, Table 803.9, 909.20.1, 909.20.4.4, 909.20.5, 909.20.6, 909.20.6.2, 1007.7.2, 1008.1.4.1, 1008.1.9.11, 1009.3, 1009.7.4, 1009.9.3, 1010.2, 1011.4, 1012.6, 1013.2, 1015.2.1, 1019.2, 1021.1, 1022.1, 1022.7, 1022.9, Table 1028.6.2, 1028.7, 1205.4, 1207.1, 2110.1.1, 2308.12.7, 2406.4.6, 2406.4.7, 3406.1.3, 3406.4, 3411.8.4; (IFC [B] 1007.7.2, 1008.1.4, 1008.1.9.11, 1009.3, 1009.7.4, 1009.9.3, 1010.2, 1011.4, 1012.6, 1013.2, 1015.2.1, 1019.2, 1021.1, 1022.1, 1022.7, 1022.9, Table 1028.6.2, 1028.7; IEBC [B] 405.1.3, 405.4, 410.8.4);

PART II - INTERNATIONAL MECHANCIAL CODE

IMC 306.5.1, 1107.2; (IFGC [M] 306.5.1)

PART III – INTERNATIONAL FIRE CODE

IFC 508.1.5, 905.3.3, 905.4, 905.4.1, 907.2.13.2, 907.5.2.2, 1104.5, 1104.6.1, 1104.9, 1104.10, 1104.10.1, 1104.12, 1104.16, 1104.16.1, 1104.16.2, 1104.16.3, 1104.16.4, 1104.16.5, 1104.16.5.1, 1104.16.6, 1104.16.7, 1104.20, 1104.21, 1104.23, 3313.1, 5704.2.9.4, 5706.5.1.12; (IBC [F] 911.1.5, 905.3.3, 905.4, 905.4.1, 907.2.13.2, 907.5.2.2, 3311.1; IEBC [F] 1506.1)

PART IV – INTERNATIONAL EXISTING BUILDING CODE

IEBC 804.1.1, 805.3.1.1, 805.3.1.2.1, 805.3.1.2.3, 805.4.3, 805.4.3.1, 805.9.1, 805.10.1, 806.2, 902.2.1, 1102.2, 1203.9, 1205.11

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

THIS IS A 4 PART CODE CHANGE. ALL PARTS WILL BE HEARD BY THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE AS 4 SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMMITTEE.

PART I – INTERNATIONAL BUILDING CODE

Revise as follows:

CHAPTER 2
DEFINITIONS

SECTION 202
DEFINITIONS

EQUIPMENT PLATFORM. An unoccupied, elevated platform used exclusively for mechanical systems or industrial process equipment, including the associated elevated walkways, ~~*stairs*~~ *stairways*, *alternating tread devices* and ladders necessary to access the platform (see Section 505.3).

EXIT. That portion of a *means of egress* system between the *exit access* and the *exit discharge* or *public way*. Exit components include exterior exit doors at the *level of exit discharge*, *interior exit stairways*~~*, interior exit*~~ *and ramps, exit passageways, exterior exit stairways* and ~~*exterior exit*~~ *ramps and horizontal exits*.

EXIT ACCESS DOORWAY. A door or access point along the path of egress travel from an occupied room, area or space where the path of egress enters an intervening room, *corridor*, *exit access* ~~*stair*~~ *stairway* or ~~*exit access*~~ *ramp*.

FLOOR AREA, GROSS. The floor area within the inside perimeter of the *exterior walls* of the building under consideration, exclusive of vent *shafts* and *courts*, without deduction for *corridors*, *stairways*, ramps, closets, the thickness of interior walls, columns or other features. The floor area of a building, or portion thereof, not provided with surrounding *exterior walls* shall be the usable area under the horizontal projection of the roof or floor above. The gross floor area shall not include *shafts* with no openings or interior *courts.*

FLOOR AREA, NET. The actual occupied area not including unoccupied accessory areas such as *corridors*, *stairways,* ramps toilet rooms, mechanical rooms and closets.

SCISSOR ~~STAIR~~ STAIRWAY. Two interlocking *stairways* providing two separate paths of egress located within one ~~stairwell~~ exit enclosure.

~~STAIR~~ STAIRWAY, SCISSOR. See "Scissor ~~stair~~ stairway."

Revise as follows:

CHAPTER 4
SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

SECTION 403
HIGHRISE BUILDINGS

403.5.1 Remoteness of interior exit stairways. Required *interior exit stairways* shall be separated by a distance not less than 30 feet (9144 mm) or not less than one-fourth of the length of the maximum overall diagonal dimension of the building or area to be served, whichever is less. The distance shall be measured in a straight line between the nearest points of the *interior exit stairways*. In buildings with three or more *interior exit stairways,* no fewer than two of the *interior exit stairways* shall comply with this section. Interlocking or *scissor ~~stairs~~ stairways* shall be counted as one *interior exit stairway.*

403.5.2 Additional exit stairway. For buildings other than Group R-2 that are more than 420 feet (128 000 mm) in *building height*, one additional *exit stairway* meeting the requirements of Sections 1009 and 1022 shall be provided in addition to the minimum number of *exits* required by Section 1021.1. The total width of any combination of remaining *exit stairways* with one *exit stairway* removed shall be not less than the total width required by Section 1005.1. *Scissor ~~stairs~~ stairways* shall not be considered the additional *exit stairway* required by this section.

> **Exception:** An additional *exit stairway* shall not be required to be installed in buildings having elevators used for occupant self-evacuation in accordance with Section 3008.

Revise as follows:

CHAPTER 5
GENERAL BUILDING HEIGHTS AND AREAS

SECTION 505
MEZZANINES AND EQUIPMENT PLATFORMS

IBC 505.3 Equipment platforms. *Equipment platforms* in buildings shall not be considered as a portion of the floor below. Such *equipment platforms* shall not contribute to either the *building area* or the number of *stories* as regulated by Section 503.1. The area of the *equipment platform* shall not be included in determining the *fire area* in accordance with Section 903. *Equipment platforms* shall not be a part of any *mezzanine* and such platforms and the walkways, *~~stairs~~ stairways*, *alternating tread devices* and ladders providing access to an *equipment platform* shall not serve as a part of the *means of egress* from the building.

Revise as follows:

CHAPTER 7
FIRE AND SMOKE PROTECTION FEATURES

SECTION 707
FIRE BARRIERS

707.6 Openings. Openings in a fire barrier shall be protected in accordance with Section 716. Openings shall be limited to a maximum aggregate width of 25 percent of the length of the wall, and the maximum area of any single opening shall not exceed 156 square feet (15 m2). Openings in enclosures for exit access stairways and ramps, interior exit stairways and ramps and exit passageways shall also comply with Sections 1022.3 and 1023.5, respectively.

Exceptions:

1. Openings shall not be limited to 156 square feet (15 m^2) where adjoining floor areas are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. Openings shall not be limited to 156 square feet (15 m2) or an aggregate width of 25 percent of the length of the wall where the opening protective is a fire door serving enclosures for exit access stairways~~, exit access~~ and ramps, and interior exit stairways and ~~interior exit~~ ramps.
3. Openings shall not be limited to 156 square feet (15 m2) or an aggregate width of 25 percent of the length of the wall where the opening protective has been tested in accordance with ASTME 119 or UL263 and has a minimum fire-resistance rating not less than the fire-resistance rating of the wall.
4. Fire window assemblies permitted in atrium separation walls shall not be limited to a maximum aggregate width of 25 percent of the length of the wall.
5. Openings shall not be limited to 156 square feet (15 m2) or an aggregate width of 25 percent of the length of the wall where the opening protective is a fire door assembly in a fire barrier separating an enclosures for exit access stairways~~, exit access~~ and ramps, and interior exit stairways and ~~interior exit~~ ramps from an exit passageway in accordance with Section 1022.2.1.

707.7.1 Prohibited penetrations. Penetrations into enclosures for exit access stairways~~, exit access~~ and ramps, interior exit stairways~~, interior exit~~ and ramps or an exit passageway shall be allowed only when permitted by Section 1009.3.1.5, 1022.5 or 1023.6, respectively.

SECTION 713
SHAFT ENCLOSURES

713.1 General. The provisions of this section shall apply to shafts required to protect openings and penetrations through floor/ceiling and roof/ceiling assemblies. Exit access stairways and ~~exit access~~ ramps shall be protected in accordance with the applicable provisions of Section 1009. Interior exit stairways and ~~interior exit~~ ramps shall be protected in accordance with the requirements of Section 1022.

Revise as follows:

SECTION 716
OPENING PROTECTIVES

TABLE 716.5
OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS

Type of Assembly
Fire barriers having a required fireresistance rating of 1 hour: Enclosures for shafts, exit access stairways~~, exit access~~ and ramps, interior exit stairways~~, interior exit~~ and ramps and exit passageway walls

(Portions of table not shown remain unchanged.)

SECTION 718
CONCEALED SPACES

718.2.4 Stairways. Fireblocking shall be provided in concealed spaces between *stair* stringers at the top and bottom of the run. Enclosed spaces under ~~*stairs*~~ *stairways* shall also comply with Section 1009.9.3.

Revise as follows:

CHAPTER 8
INTERIOR FINISHES

SECTION 803
WALL AND CEILING FINISHES

TABLE 803.9
INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY[k]

Group	SPRINKLERED			NONSPRINKLERED		
	Interior exit stairways~~, interior exit~~ and ramps and exit passageways[a, b]	**Corridors and enclosure for exit access stairways and ~~exit access~~ ramps**	**Rooms and enclosed spaces[c]**	**Interior exit stairways~~, interior exit~~ and ramps and exit passageways[a, b]**	**Corridors and enclosure for exit access stairways and ~~exit access~~ ramps**	**Rooms and enclosed spaces[c]**

b. In other than Group I-2 occupancies in buildings less than three stories above grade plane of other than Group I-3, Class B interior finish for nonsprinklered buildings and Class C interior finish for sprinklered buildings shall be permitted in interior exit stairways and ramps.

j. Class B materials shall be permitted as wainscoting extending not more than 48 inches above the finished floor in corridors and exit access stairways and ramps.

(Portions of table and notes not shown remain unchanged)

Revise as follows:

CHAPTER 9
FIRE PROTECTION SYSTEMS

SECTION 909
SMOKE CONTROL SYSTEMS

909.20.1 Access. Access to the ~~*stair*~~ *stairway* shall be by way of a vestibule or an open exterior balcony. The minimum dimension of the vestibule shall not be less than the required width of the *corridor* leading to the vestibule but shall not have a width of less than 44 inches (1118 mm) and shall not have a length of less than 72 inches (1829 mm) in the direction of egress travel.

909.20.4.4 ~~Stair~~ Stairway shaft air movement system. The ~~*stair*~~ *stairway* shaft shall be provided with a dampered relief opening and supplied with sufficient air to maintain a minimum positive pressure of 0.10 inch of water (25 Pa) in the shaft relative to the vestibule with all doors closed.

909.20.5 ~~Stair~~ Stairway pressurization alternative. Where the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, the vestibule is not required, provided that interior *exit stairways* are pressurized to a minimum of 0.10 inches of water (25 Pa) and a maximum of 0.35 inches of water (87 Pa) in the shaft relative to the building measured with all interior *exit stairway* doors closed under maximum anticipated conditions of stack effect and wind effect.

909.20.6 Ventilating equipment. The activation of ventilating equipment required by the alternatives in Sections 909.20.4 and 909.20.5 shall be by smoke detectors installed at each floor level at an *approved* location at the entrance to the smokeproof enclosure. When the closing device for the ~~*stair*~~ *stairway* shaft and vestibule doors is activated by smoke detection or power failure, the mechanical equipment shall activate and operate at the required performance levels. Smoke detectors shall be installed in accordance with Section 907.3.

909.20.6.2 Standby power. Mechanical vestibule and ~~*stair*~~ *stairway* shaft ventilation systems and automatic fire detection systems shall be powered by an *approved* standby power system conforming to Section 403.4.8 and Chapter 27.

Revise as follows:

CHAPTER 10
MEANS OF EGRESS

SECTION 1007 (IFC [B] 1007)
ACCESSIBLE MEANS OF EGRESS

1007.7.2 (IFC [B] 1007.7.2) Outdoor facilities. Where *exit access* from the area serving outdoor facilities is essentially open to the outside, an exterior area of assisted rescue is permitted as an alternative to an *area of refuge*. Every required exterior area of assisted recue shall have direct access to an *interior exit stairway*, exterior exit *stairway*, or elevator serving as an *accessible means of egress* component. The exterior area of assisted rescue shall comply with Section 1007.7.3 through 1007.7.6 and shall be provided with a two-way communication system complying with Sections 1007.8.1 and 1007.8.2.

SECTION 1008 (IFC [B] 1008)
DOORS, GATES AND TURNSTILES

1008.1.4.1 (IFC [B] 1008.1.4.1) Revolving doors. Revolving doors shall comply with the following:

1. Each revolving door shall be capable of collapsing into a bookfold position with parallel egress paths providing an aggregate width of 36 inches (914 mm).
2. A revolving door shall not be located within 10 feet (3048 mm) of the foot of or top of ~~*stairs*~~ *stairways* or escalators. A dispersal area shall be provided between the ~~*stairs*~~ *stairways* or escalators and the revolving doors.
3. The revolutions per minute (rpm) for a revolving door shall not exceed those shown in Table 1008.1.4.1.
4. Each revolving door shall have a side-hinged swinging door which complies with Section 1008.1 in the same wall and within 10 feet (3048 mm) of the revolving door.
5. Revolving doors shall not be part of an *accessible route* required by Section 1007 and Chapter 11.

1008.1.9.11 (IFC [B] 1008.1.9.11) Stairway doors. Interior *stairway means of egress* doors shall be openable from both sides without the use of a key or special knowledge or effort.

Exceptions:

1. *Stairway* discharge doors shall be openable from the egress side and shall only be locked from the opposite side.
2. This section shall not apply to doors arranged in accordance with Section 403.5.3.
3. In *stairways* serving not more than four stories, doors are permitted to be locked from the side opposite the egress side, provided they are openable from the egress side and capable of being unlocked simultaneously without unlatching upon a signal from the fire command center, if present, or a signal by emergency personnel from a single location inside the main entrance to the building.
4. *Stairway exit* doors shall be openable from the egress side and shall only be locked from the opposite side in Group B, F, M and S occupancies where the only interior access to the tenant space is from a single *exit* ~~*stair*~~ *stairway* where permitted in Section 1021.2.
5. *Stairway exit* doors shall be openable from the egress side and shall only be locked from the opposite side in Group R-2 occupancies where the only interior access to the dwelling unit is from a single *exit* ~~*stair*~~ *stairway* where permitted in Section 1021.2.

SECTION 1009 (IFC [B] 1009)
STAIRWAYS

1009.3 (IFC [B] 1009.3) Exit access stairways. Floor openings between stories created by *exit access stairways* shall be enclosed.

Exceptions:

1. In other than Group I-2 and I-3 occupancies, *exit access stairways* that serve, or atmospherically communicate between, only two stories are not required to be enclosed.
2. *Exit access stairways* serving and contained within a single residential dwelling unit or sleeping unit in Group R-1, R-2 or R-3 occupancies are not required to be enclosed.
3. In buildings with only Group B or M occupancies, *exit access stairway* openings are not required to be enclosed provided that the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, the area of the floor opening between stories does not exceed twice the horizontal projected area of the *exit access stairway*, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.
4. In other than Groups B and M occupancies, *exit access stairway* openings are not required to be enclosed provided that the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, the floor opening does not connect more than four stories, the area of the floor opening between stories does not exceed twice the horizontal projected area of the *exit access stairway*, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.
5. *Exit access stairways* within an *atrium* complying with the provisions of Section 404 are not required to be enclosed.
6. *Exit access stairways* ~~and *ramps*~~ in open parking garages that serve only the parking garage are not required to be enclosed.
7. *Exit access Stairways* serving outdoor facilities where all portions of the *means of egress* are essentially open to the outside are not required to be enclosed.
8. *Exit access stairways* serving stages, platforms and *technical production areas* in accordance with Sections 410.6.2 and 410.6.3 are not required to be enclosed.
9. *Exit access Stairways* are permitted to be open between the balcony, gallery or press box and the main assembly floor in occupancies such as theaters, *places of religious worship*, auditoriums and sports facilities.
10. In Group I-3 occupancies, *exit access stairways* constructed in accordance with Section 408.5 are not required to be enclosed.

1009.7.4 (IFC [B] 1009.7.4) Dimensional uniformity. *Stair* treads and risers shall be of uniform size and shape. The tolerance between the largest and smallest riser height or between the largest and smallest tread depth shall not exceed 3/8 inch (9.5 mm) in any *flight* of *stairs*. The greatest *winder* tread depth at the walkline within any *flight* of *stairs* shall not exceed the smallest by more than 3/8 inch (9.5 mm).

Exceptions:

1. Nonuniform riser dimensions of *aisle stairs* complying with Section 1028.11.2.
2. Consistently shaped *winders*, complying with Section 1009.7, differing from rectangular treads in the same ~~*stairway*~~ *flight* *of stairs*.

Where the bottom or top riser adjoins a sloping *public way*, walkway or driveway having an established grade and serving as a landing, the bottom or top riser is permitted to be reduced along the slope to less than 4 inches (102 mm) in height, with the variation in height of the bottom or top riser not to exceed one unit vertical in 12 units horizontal (8-percent slope) of ~~*stairway*~~ *stair* width. The *nosings* or leading edges of treads at such nonuniform height risers shall have a distinctive marking stripe, different from any other *nosing* marking provided on the *stair flight*. The distinctive marking stripe shall be visible in descent of the *stair* and shall have a slip-resistant surface. Marking stripes shall have a width of at least 1 inch (25 mm) but not more than 2 inches (51 mm).

1009.9.3 (IFC [B] 1009.9.3) Enclosures under interior stairways. The walls and soffits within enclosed usable spaces under enclosed and unenclosed *stairways* shall be protected by 1-hour fire-resistance-rated construction or the *fire-resistance rating* of the *stairway* enclosure, whichever is greater. Access to the enclosed space shall not be directly from within the ~~*stair*~~ *stairway* enclosure.
Exception: Spaces under *stairways* serving and contained within a single residential dwelling unit in Group R-2 or R-3 shall be permitted to be protected on the enclosed side with 1/2-inch (12.7 mm) gypsum board.

SECTION 1010 (IFC [B] 1010)
RAMPS

1010.2 (IFC [B] 1010.2) Enclosure. All *interior exit ramps* shall be enclosed in accordance with the applicable provisions of Section 1022. *Exit access ramps* shall be enclosed in accordance with the provisions of ~~Section~~ Sections 1009.2, 1009. 3 and 1009.4 for enclosure of *stairways*.

SECTION 1011 (IFC [B] 1011)
EXIT SIGNS

1011.4 (IFC [B] 1011.4) Raised character and Braille exit signs. A sign stating EXIT in raised characters and Braille and complying with ICC A117.1 shall be provided adjacent to each door to an *area of refuge*, an exterior area for assisted rescue, an *exit stairway*~~, an *exit*~~ *or* *ramp*, an *exit passageway* and the *exit discharge*.

SECTION 1012 (IFC [B] 1012)
HANDRAILS

1012.6 (IFC [B] 1012.6) Handrail extensions. *Handrails* shall return to a wall, *guard* or the walking surface or shall be continuous to the *handrail* of an adjacent ~~*stair*~~ *flight* of stairs or *ramp* run. Where *handrails* are not continuous between *flights,* the *handrails* shall extend horizontally at least 12 inches (305 mm) beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser. At *ramps* where *handrails* are not continuous between runs, the *handrails* shall extend horizontally above the landing 12 inches (305 mm) minimum beyond the top and bottom of *ramp* runs. The extensions of *handrails* shall be in the same direction of the ~~*stair*~~ *flights* of stairs at *stairways* and the *ramp* runs at *ramps*.

Exceptions:

1. *Handrails* within a *dwelling unit* that is not required to be *accessible* need extend only from the top riser to the bottom riser.
2. *Aisle handrails* in rooms or spaces used for assembly purposes in accordance with Section 1028.13.
3. *Handrails* for *alternating tread devices* and ship ladders are permitted to terminate at a location vertically above the top and bottom risers. *Handrails* for *alternating tread devices* and ship ladders are not required to be continuous between *flights* or to extend beyond the top or bottom risers.

SECTION 1013 (IFC [B] 1013)
GUARDS

1013.2 (IFC [B] 1013.2) Where required. *Guards* shall be located along open-sided walking surfaces, including *mezzanines*, *equipment platforms*, *stairs*, *ramps* and landings that are located more than 30 inches (762 mm) measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side. *Guards* shall be adequate in strength and attachment in accordance with Section 1607.8.

Exception: *Guards* are not required for the following locations:

1. On the loading side of loading docks or piers.
2. On the audience side of *stages* and raised *platforms*, including ~~steps~~ stairs leading up to the *stage* and raised *platforms*.
3. On raised *stage* and *platform* floor areas, such as runways, *ramps* and side *stages* used for entertainment or presentations.
4. At vertical openings in the performance area of stages and *platforms*.
5. At elevated walking surfaces appurtenant to *stages* and *platforms* for access to and utilization of special lighting or equipment.
6. Along vehicle service pits not accessible to the public.
7. In assembly seating where *guards* in accordance with Section 1028.14 are permitted and provided.

SECTION 1015 (IFC [B] 1015)
EXIT AND EXIT ACCESS DOORWAYS

1015.2.1 (IFC [B] 1015.2.1) Two exits or exit access doorways. Where two *exits* or *exit access doorways* are required from any portion of the *exit access*, the *exit* doors or *exit access doorways* 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 *exit* doors or *exit access doorways*. Interlocking or *scissor* ~~*stairs*~~ *stairways* shall be counted as one *exit stairway*.

Exceptions:

1 Where *interior exit stairways* are interconnected by a 1-hour fire-resistance-rated *corridor* conforming to the requirements of Section 1018, the required *exit* separation shall be measured along the shortest direct line of travel within the *corridor*.
2. Where a building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2, the separation distance of the *exit* doors or *exit access doorways* shall not be less than one-third of the length of the maximum overall diagonal dimension of the area served.

SECTION 1019 (IFC [B] 1019)
EGRESS BALCONIES

1019.2 (IFC [B] 1019.2) Wall separation. Exterior egress balconies shall be separated from the interior of the building by walls and opening protectives as required for *corridors*.
Exception: Separation is not required where the exterior egress balcony is served by at least two ~~*stairs*~~ *stairways* and a deadend travel condition does not require travel past an unprotected opening to reach a ~~*stair*~~ *stairway*.

SECTION 1021 (IFC [B] 1021)
NUMBER OF EXITS AND EXIT CONFIGURATION

1021.1 (IFC [B] 1021.1.) General. Each story and occupied roof shall have the minimum number of *exits*, or access to exits, as specified in this section. The required number of *exits*, or *exit access stairways* or *ramps* providing access to exits, from any story shall be maintained until arrival at grade or a *public way*. *Exits* or access to exits from any story shall be configured in accordance with this section. Each story above the second story of a building shall have a minimum of one interior or exterior *exit stairway*~~,~~ or ~~interior or exterior *exit*~~ *ramp*. At each story above the second story that requires a minimum of three or more *exits*, or access to *exits*, a minimum of 50 percent of the required *exits* shall be interior or exterior *exit stairways*~~,~~ or ~~interior or exterior *exit*~~ *ramps*.

Exceptions:

1. *Interior exit stairways* and ~~*interior exit*~~ *ramps* are not required in *open parking garages* where the *means of egress* serves only the *open parking garage*.
2. *Interior exit stairways* and ~~*interior exit*~~ *ramp*s are not required in outdoor facilities where all portions of the *means of egress* are essentially open to the outside.

SECTION 1022 (IFC [B] 1022)
INTERIOR EXIT STAIRWAYS AND RAMPS

1022.1 (IFC [B] 1022.1) General. *Interior exit stairways* and ~~*interior exit*~~ *ramps* serving as an *exit* component in a *means of egress* system shall comply with the requirements of this section. *Interior exit stairways* and *ramps* shall lead directly to the exterior of the building or shall be extended to the exterior of the building with an *exit passageway* conforming to the requirements of Section 1023, except as permitted in Section 1027.1. An *interior exit stairway* or *ramp* shall not be used for any purpose other than as a *means of egress*.

1022.7 (IFC [B] 1022.7) Interior exit stairway and ramp exterior walls. *Exterior walls* of the *interior exit stairway* and *ramp* shall comply with the requirements of Section 705 for exterior walls. Where nonrated walls or unprotected openings enclose the exterior of the *stairway* or ramps and the walls or openings are exposed by other parts of the building at an angle of less than 180 degrees (3.14 rad), the building *exterior walls* within 10 feet (3048 mm) horizontally of a nonrated wall or unprotected opening shall have a *fire-resistance rating* of not less than 1 hour. Openings within such *exterior walls* shall be protected by opening protectives having a *fire protection rating* of not less than 3/4 hour. This construction shall extend vertically from the ground to a point 10 feet (3048 mm) above the topmost landing of the *stairway*, ramp or to the roof line, whichever is lower.

1022.9 (IFC [B] 1022.9) Stairway identification signs. A sign shall be provided at each floor landing in an *interior exit stairway* and *ramp* connecting more than three stories designating the floor level, the terminus of the top and bottom of the *interior exit stairway* and *ramp* and the identification of the ~~*stair*~~ *stairway* or *ramp*. The signage shall also state the story of, and the direction to, the *exit discharge* and the availability of roof access from the *interior exit stairway* and *ramp* for the fire department. The sign shall be located 5 feet (1524 mm) above the floor landing in a position that is readily visible when the doors are in the open and closed positions. In addition to the *stairway* identification sign, a floor level sign in raised

characters and braille complying with ICC A117.1 shall be located at each floor level landing adjacent to the door leading from the *interior exit stairway* and *ramp* into the *corridor* to identify the floor level.

SECTION 1028 (IFC [B] 1028)
ASSEMBLY

TABLE 1028.6.2 (IFC [B] Table 1028.6.2)
WIDTH OF AISLES FOR SMOKE-PROTECTED ASSEMBLY

TOTAL NUMBER OF SEATS IN THE SMOKEPROTECTED ASSEMBLY SEATING	INCHES OF CLEAR WIDTH PER SEAT SERVED			
	~~Stairs and~~ aisle ~~steps~~ stairs with handrails within 30 inches	~~Stairs and~~ aisle ~~steps~~ stairs without handrails within 30 inches	~~Passageways, doorways and~~ Level and ramped aisles ~~ramps~~ not steeper than 1 in 10 in slope	~~Ramps~~ Ramped aisles steeper than 1 in 10 in slope

(Portions of table not shown remain unchanged)

1028.7 (IFC [B] 1028.7) Travel distance. *Exits* and *aisles* shall be so located that the travel distance to an *exit* door shall not be greater than 200 feet (60 960 mm) measured along the line of travel in nonsprinklered buildings. Travel distance shall not be more than 250 feet (76 200 mm) in sprinklered buildings. Where *aisles* are provided for seating, the distance shall be measured along the *aisles* and *aisle accessway* without travel over or on the seats.

Exceptions:

1. *Smoke-protected assembly seating*: The travel distance from each seat to the nearest entrance to a vomitory or concourse shall not exceed 200 feet (60 960 mm). The travel distance from the entrance to the vomitory or concourse to a ~~*stair*~~ *stairway*, *ramp* or walk on the exterior of the building shall not exceed 200 feet (60 960 mm).
2. Open-air seating: The travel distance from each seat to the building exterior shall not exceed 400 feet (122 m). The travel distance shall not be limited in facilities of Type I or II construction.

Revise as follows:

CHAPTER 12
INTERIOR ENVIRONMENT

SECTION 1205
LIGHTING

1205.4 Stairway illumination. *Stairways* within *dwelling units* and *exterior stairways* serving a *dwelling unit* shall have an illumination level on tread runs of not less than 1 foot-candle (11 lux). ~~*Stairs*~~ *Stairways* in other occupancies shall be governed by Chapter 10.

SECTION 1207
SOUND TRANSMISSION

1207.1 Scope. This section shall apply to common interior walls, partitions and floor/ceiling assemblies between adjacent *dwelling units* or between *dwelling units* and adjacent public areas such as halls, *corridors*, ~~*stairs*~~ *stairways* or service areas.

Revise as follows:

CHAPTER 21
MASONRY

SECTION 2110
GLASS UNIT MASONRY

2110.1.1 Limitations. Solid or hollow *approved* glass block shall not be used in fire walls, party walls, fire barriers, fire partitions or smoke barriers, or for load-bearing construction. Such blocks shall be erected with mortar and reinforcement in metal channel-type frames, structural frames, masonry or concrete recesses, embedded panel anchors as provided for both exterior and interior walls or other *approved* joint materials. Wood strip framing shall not be used in walls required to have a fire-resistance rating by other provisions of this code.

Exceptions:

1. Glass-block assemblies having a fire protection rating of not less than 3/4 hour shall be permitted as opening protectives in accordance with Section 716 in fire barriers, fire partitions and smoke barriers that have a required fire-resistance rating of 1 hour or less and do not enclose exit stairways~~, exit~~ and~~-~~ ramps or exit passageways.
2. Glass-block assemblies as permitted in Section 404.6, Exception 2.

Revise as follows:

CHAPTER 23
WOOD

SECTION 2308
CONVENTIONAL LIGHT-FRAMED CONSTRUCTION

2308.12.7 Anchorage of exterior means of egress components. Exterior egress balconies, exterior ~~exit~~ stairways or ramps and similar *means of egress* components shall be positively anchored to the primary structure at not over 8 feet (2438 mm) o.c. or shall be designed for lateral forces. Such attachment shall not be accomplished by use of toenails or nails subject to withdrawal.

Revise as follows:

CHAPTER 24
GLASS AND GLAZING

SECTION 2406
SAFETY GLAZING

2406.4.6 Glazing adjacent to ~~stairs~~ stairways and ramps. Glazing where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) above the plane of the adjacent walking surface of stairways, landings between flights of stairs, and ramps shall be considered a hazardous location.

Exceptions:

1. The side of a stairway, landing or ramp that has a guard complying with the provisions of Sections 1013 and 1607.8, and the plane of the glass is greater than 18 inches (457 mm) from the railing.
2. Glazing 36 inches (914 mm) or more measured horizontally from the walking surface.

2406.4.7 Glazing adjacent to the bottom ~~stair~~ stairway landing. Glazing adjacent to the landing at the bottom of a stairway where the glazing is less than 36 inches (914 mm) above the landing and within 60 inches (1524 mm) horizontally of the bottom tread shall be considered a hazardous location.

> **Exception:** Glazing that is protected by a guard complying with Sections 1013 and 1607.8 where the plane of the glass is greater than 18 inches (457 mm) from the guard.

Revise as follows:

CHAPTER 34
EISTING STRUCTURES

SECTION 3406 (IEBC [B] 405)
FIRE ESCAPES

3406.1.3 (IEBC [B] 405.1.3) New fire escapes. New fire escapes for existing buildings shall be permitted only where exterior ~~*stairs*~~ *stairways* cannot be utilized due to lot lines limiting ~~*stair*~~ *stairway* size or due to the sidewalks, alleys or roads at grade level. New fire escapes shall not incorporate ladders or access by windows.

3406.4 (IEBC [B] 405.4) Dimensions. *Stairs* shall be at least 22 inches (559 mm) wide with risers not more than, and treads not less than, 8 inches (203 mm) and landings at the foot of ~~stairs~~ stairways not less than 40 inches (1016 mm) wide by 36 inches (914 mm) long, located not more than 8 inches (203 mm) below the door.

SECTION 3411 (IEBC [B] 410)
ACCESSIBILITY FOR EXISTING BUILDINGS

3411.8.4 (IEBC [B] 410.8.4) ~~Stairs~~ Stairways and escalators in existing buildings. In *alterations*, change of occupancy or *additions* where an escalator or ~~*stair*~~ *stairway* is added where none existed previously and major structural modifications are necessary for installation, an *accessible* route shall be provided between the levels served by the escalator or ~~*stairs*~~ *stairways* in accordance with Sections 1104.4 and 1104.5.

PART II - INTERNATIONAL MECHANICAL CODE

Revise as follows:

IMC CHAPTER 3
GENERAL REGULATIONS

IMC SECTION 306
ACCCESS AND SERVICE SPACE

IMC 306.5.1 (IFGC [M] 306.5.1) Sloped roofs. Where appliances, *equipment*, fans or other components that require service are installed on a roof having a slope of three units vertical in 12 units horizontal (25-percent slope) or greater and having an edge more than 30 inches (762 mm) above grade at such edge, a level platform shall be provided on each side of the *appliance* or *equipment* to which access is required for service, repair or maintenance. The platform shall be not less than 30 inches (762 mm) in any dimension and shall be provided with guards. The guards shall extend not less than 42 inches (1067 mm) above the platform, shall be constructed so as to prevent the passage of a 21-inch diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the *International Building Code*. Access shall not require walking on roofs having a slope greater than four units vertical in 12 units horizontal (33-percent slope). Where access involves obstructions greater than 30 inches (762 mm) in height, such obstructions shall be provided with ladders installed in accordance with Section 306.5 or ~~stairs~~ stairways installed in accordance with the requirements specified in the *International Building Code* in the path of travel to and from appliances, fans or *equipment* requiring service.

IMC CHAPTER 11
REFRIGERATION

IMC SECTION 1107
REFRIGERANT PIPING

IMC 1107.2 Piping location. Refrigerant piping that crosses an open space that affords passageway in any building shall be not less than 7 feet 3 inches (2210 mm) above the floor unless the piping is located against the ceiling of such space. Refrigerant piping shall not be placed in any elevator, dumbwaiter or other shaft containing a moving object or in any shaft that has openings to living quarters or to means of egress. Refrigerant piping shall not be installed in an enclosed public stairway, ~~stair~~ stairway landing or means of egress.

PART III – INTERNATIONAL FIRE CODE

Revise as follows:

IFC CHAPTER 5
FIRE SERVICE FEATURES

IFC SECTION 508 (IBC [F] 911)
FIRE COMMAND CENTER

IFC 508.1.5 (IBC [F] 911.1.5) Required features. The fire command center shall comply with NFPA 72 and shall contain the following features:

1. The emergency voice/alarm communication system control unit.
2. The fire department communications system.
3. Fire detection and alarm system annunciator.
4. Annunciator unit visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air distribution systems.
6. The fire-fighter's control panel required by Section 909.16 for smoke control systems installed in the building.
7. Controls for unlocking interior exit *stairway* doors simultaneously.
8. Sprinkler valve and waterflow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pump status indicators.
12. Schematic building plans indicating the typical floor plan and detailing the building core, *means of egress*, fire protection systems, fire-fighting equipment and fire department access and the location of *fire walls, fire barriers, fire partitions, smoke barriers* and smoke partitions.
13. An approved Building Information Card that contains, but is not limited to, the following information:
    - 13.1 General building information that includes: property name, address, the number of floors in the building (above and below grade), use and occupancy classification (for mixed uses, identify the different types of occupancies on each floor), estimated building population (i.e., day, night, weekend);
    - 13.2 Building emergency contact information that includes: a list of the building's emergency contacts (e.g., building manager, building engineer, etc.) and their respective work phone number, cell phone number, email address;
    - 13.3 Building construction information that includes: the type of building construction (e.g., floors, walls, columns, and roof assembly);
    - 13.4 *Exit access and exit ~~stair~~ stairway* information that includes: number of *exit access and exit ~~stair~~ stairway* in building, each *exit access and exit ~~stair~~ stairway* designation and floors served, location where each *exit access and exit ~~stair~~ stairway* discharges, interior *exit ~~stairs~~ stairways* that are pressurized, *exit ~~stairs~~ stairways* provided with emergency lighting, each *exit ~~stairs~~ stairways* that allows reentry, *exit ~~stairs~~ stairways* providing roof access; elevator information that includes: number of elevator banks, elevator bank designation, elevator car numbers and respective floors that they serve, location of elevator machine rooms, location of sky lobby, location of freight elevator banks;
    - 13.5 Building services and system information that includes: location of mechanical rooms, location of building management system, location and capacity of all fuel oil tanks, location of emergency generator, location of natural gas service;
    - 13.6 Fire protection system information that includes: locations of standpipes, location of fire pump room, location of fire department connections, floors protected by automatic sprinklers, location of different types of sprinkler systems installed (e.g., dry, wet, pre-action, etc.);
    - 13.7 Hazardous material information that includes: location of hazardous material, quantity of hazardous material.

14. Work table.
15. Generator supervision devices, manual start and transfer features.
16. Public address system, where specifically required by other sections of this code.
17. Elevator fire recall switch in accordance with ASME A17.1.
18. Elevator emergency or standby power selector switch(es), where emergency or standby power is provided.

IFC CHAPTER 9
FIRE PROTECTION SYSTEMS

IFC SECTION 905
STANDPIPE SYSTEMS

IFC 905.3.3 (IBC [F] 905.3.3) Covered and open mall buildings. Covered mall and open mall buildings shall be equipped throughout with a standpipe system where required by Section 905.3.1. Mall buildings not required to be equipped with a standpipe system by Section 905.3.1 shall be equipped with Class I hose connections connected to the *automatic sprinkler system* sized to deliver water at 250 gallons per minute (946.4 L/min) at the most hydraulically remote hose connection while concurrently supplying the automatic sprinkler system demand. The standpipe system shall be designed to not exceed a 50 pounds per square inch (psi) (345 kPa) residual pressure loss with a flow of 250 gallons per minute (946.4 L/min) from the fire department connection to the hydraulically most remote hose connection. Hose connections shall be provided at each of the following locations:

1. Within the mall at the entrance to each *exit* passageway or *corridor*.
2. At each floor-level landing within ~~enclosed~~ interior exit stairways opening directly on the mall.
3. At exterior public entrances to the mall of a covered mall building.
4. At public entrances at the perimeter line of an open mall building.

IFC 905.4 (IBC [F] 905.4) Location of Class I standpipe hose connections. Class I standpipe hose connections shall be provided in all of the following locations:

1. In every required interior exit *stairway*, a hose connection shall be provided for each floor level above or below grade. Hose connections shall be located at an intermediate floor level landing between floors, unless otherwise *approved* by the fire code official.
2. On each side of the wall adjacent to the *exit* opening of a *horizontal exit*.

   Exception: Where floor areas adjacent to a *horizontal exit* are reachable from an interior *exit stairway* hose connections by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the *horizontal exit*.

3. In every *exit* passageway, at the entrance from the *exit* passageway to other areas of a building.

   Exception: Where floor areas adjacent to an *exit* passageway are reachable from an interior *exit stairway* hose connections by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the entrance from the *exit* passageway to other areas of the building.

4. In covered mall buildings, adjacent to each exterior public entrance to the mall and adjacent to each entrance from an exit passageway or exit corridor to the mall. In open mall buildings, adjacent to each public entrance to the mall at the perimeter line and adjacent to each entrance from an exit passageway or exit corridor to the mall.
5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), a hose connection shall be located to serve the roof or at the highest landing of ~~a~~ an interior exit stairway with ~~stair~~ access to the roof provided in accordance with Section 1009.16.
6. Where the most remote portion of a nonsprinklered floor or *story* is more than 150 feet (45 720 mm) from a hose connection or the most remote portion of a sprinklered floor or *story* is more

than 200 feet (60 960 mm) from a hose connection, the fire code official is authorized to require that additional hose connections be provided in *approved* locations.

IFC 905.4.1 (IBC [F] 905.4.1) Protection. Risers and laterals of Class I standpipe systems not located within an ~~enclosed~~ interior exit *stairway* ~~or pressurized enclosure~~ shall be protected by a degree of *fire resistance* equal to that required for vertical enclosures in the building in which they are located.

Exception: In buildings equipped throughout with an *approved automatic sprinkler system*, laterals that are not located within an ~~enclosed~~ interior exit *stairway* ~~or pressurized enclosure~~ are not required to be enclosed within fire-resistance- rated construction.

IFC SECTION 907 (IBC [F] 907)
FIRE ALARM AND DETECTION SYSTEMS

IFC 907.2.13.2 (IBC [F] 907.2.13.2) Fire department communication system. Where a wired communication system is *approved* in lieu of an emergency responder radio coverage system in accordance with Section 510 of the *International Fire Code*, the wired fire department communication system shall be designed and installed in accordance with NFPA 72 and shall operate between a fire command center complying with Section 911, elevators, elevator lobbies, emergency and standby power rooms, fire pump rooms, *areas of refuge* and inside ~~enclosed~~ *interior exit stairways*. The fire department communication device shall be provided at each floor level within the ~~enclosed~~ *interior exit stairway*.

IFC 907.5.2.2 (IBC [F] 907.5.2.2) Emergency voice/alarm communication systems. Emergency voice/alarm communication systems required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler waterflow device or manual fire alarm box shall automatically sound an alert tone followed by voice instructions giving *approved* information and directions for a general or staged evacuation in accordance with the building's fire safety and evacuation plans required by Section 404 of the *International Fire Code*. In high-rise buildings, the system shall operate on a minimum of the alarming floor, the floor above and the floor below. Speakers shall be provided throughout the building by paging zones. At a minimum, paging zones shall be provided as follows:

1. Elevator groups.
2. Interior *Exit stairways*.
3. Each floor.
4. *Areas of refuge* as defined in Section 1002.1.

Exception: In Group I-1 and I-2 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

IFC CHAPTER 11
CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS

IFC SECTION 1104
MEANS OF EGRESS FOR EXISTING BUILDINGS

IFC 1104.5 Illumination emergency power. The power supply for *means of egress* illumination shall normally be provided by the premises' electrical supply. In the event of power supply failure, illumination shall be automatically provided from an emergency system for the following occupancies where such occupancies require two or more *means of egress:*

1 and 2 *(No change)*
3. Group E in interior ~~stairs~~ exit access and exit stairways and ramps, *corridors,* windowless areas with student occupancy, shops and laboratories.

4 through 9 *(No change)*

IFC 1104.6.1 Height of guards. Guards shall form a protective barrier not less than 42 inches (1067 mm) high.

Exceptions:

1. Existing guards on the open side of ~~*stairs*~~ stairways shall be not less than 30 inches (760 mm) high.
2. Existing guards within *dwelling units* shall be not less than 36 inches (910 mm) high.
3. Existing guards in assembly seating areas.

IFC 1104.9 Revolving doors. Revolving doors shall comply with the following:

1. A revolving door shall not be located within 10 feet (3048 mm) of the foot or top of ~~stairs~~ stairways or escalators. A dispersal area shall be provided between the ~~stairs~~ stairways or escalators and the revolving doors.
2. The revolutions per minute for a revolving door shall not exceed those shown in Table 1104.9.
3. Each revolving door shall have a conforming side hinged swinging door in the same wall as the revolving door and within 10 feet (3048 mm).

   Exceptions:

   1. A revolving door is permitted to be used without an adjacent swinging door for street-floor elevator lobbies provided a stairway, escalator or door from other parts of the building does not discharge through the lobby and the lobby does not have any occupancy or use other than as a means of travel between elevators and a street.
   2. Existing revolving doors where the number of revolving doors does not exceed the number of swinging doors within 20 feet (6096 mm).

IFC 1104.10 Stair dimensions for existing ~~stairs~~ stairways. Existing ~~stairs~~ stairways in buildings shall be permitted to remain if the rise does not exceed 81/4 inches (210 mm) and the run is not less than 9 inches (229 mm). Existing ~~stairs~~ stairways can be rebuilt.

Exception: Other ~~stairs~~ stairways *approved* by the *fire code official*.

IFC 1104.10.1 Dimensions for replacement ~~stairs~~ stairways. The replacement of an existing *stairway* in a structure shall not be required to comply with the new *stairway* requirements of Section 1009 where the existing space and construction will not allow a reduction in pitch or slope.

IFC 1104.12 ~~Circular~~ Curved stairways. Existing ~~circular stairs~~ curved stairways shall be allowed to continue in use provided the minimum depth of tread is 10 inches (254 mm) and the smallest radius shall not be less than twice the width of the *stairway*.

IFC 1104.16 Fire escape ~~stairs~~ stairways. Fire escape ~~stairs~~ stairways shall comply with Sections 1104.16.1 through 1104.16.7.

IFC 1104.16.1 Existing means of egress. Fire escape ~~stairs~~ stairways shall be permitted in existing buildings but shall not constitute more than 50 percent of the required *exit* capacity.

IFC 1104.16.2 Protection of openings. Openings within 10 feet (3048 mm) of fire escape ~~stairs~~ stairways shall be protected by opening protectives having a minimum 3/4-hour *fire protection rating*.

Exception: In buildings equipped throughout with an *approved automatic sprinkler system*, opening protection is not required.

IFC 1104.16.3 Dimensions. Fire escape ~~stairs~~ stairways shall meet the minimum width, capacity, riser height and tread depth as specified in Section 1104.10.

IFC 1104.16.4 Access. Access to a fire escape ~~stair~~ stairway from a *corridor* shall not be through an intervening room. Access to a fire escape ~~stair~~ stairway shall be from a door or window meeting the criteria of Section 1005.1. Access to a fire escape ~~stair~~ stairway shall be directly to a balcony, landing or platform. These shall be no higher than the floor or window sill level and no lower than 8 inches (203 mm) below the floor level or 18 inches (457 mm) below the window sill.

IFC 1104.16.5 Materials and strength. Components of fire escape ~~stairs~~ stairways shall be constructed of noncombustible materials. Fire escape ~~stairs~~ stairways and balconies shall support the dead load plus a live load of not less than 100 pounds per square foot (4.78 kN/m2). Fire escape ~~stairs~~ stairways and balconies shall be provided with a top and intermediate handrail on each side.

IFC 1104.16.5.1 Examination. Fire escape ~~stairs~~ stairways and balconies shall be examined for structural adequacy and safety in accordance with Section 1104.16.5 by a registered design professional or others acceptable to the *fire code official* every five years, or as required by the *fire code official*. An inspection report shall be submitted to the *fire code official* after such examination.

IFC 1104.16.6 Termination. The lowest balcony shall not be more than 18 feet (5486 mm) from the ground. Fire escape ~~stairs~~ stairways shall extend to the ground or be provided with counterbalanced ~~stairs~~ stairways reaching the ground.

> **Exception:** For fire escape ~~stairs~~ stairways serving 10 or fewer occupants, an *approved* fire escape ladder is allowed to serve as the termination.

IFC 1104.16.7 Maintenance. Fire escapes stairways shall be kept clear and unobstructed at all times and shall be maintained in good working order.

IFC 1104.20 Stairway discharge identification. An interior *exit stairway* or *ramp* which continues below its *level of exit discharge* shall be arranged and marked to make the direction of egress to a *public way* readily identifiable.

> **Exception:** ~~Stairs~~ Stairways that continue one-half story beyond their *levels of exit discharge* need not be provided with barriers where the *exit discharge* is obvious.

IFC 1104.21 Exterior stairway protection. Exterior *exit* ~~stairs~~ stairways shall be separated from the interior of the building as required in Section 1026.6. Openings shall be limited to those necessary for egress from normally occupied spaces.

> **Exceptions:**
>
> 1. Separation from the interior of the building is not required for buildings that are two stories or less above grade where the *level of exit discharge* serving such occupancies is the first story above grade.
> 2. Separation from the interior of the building is not required where the exterior *stairway* is served by an exterior balcony that connects two remote exterior *stairways* or other *approved exits*, with a perimeter that is not less than 50 percent open. To be considered open, the opening shall be a minimum of 50 percent of the height of the enclosing wall, with the top of the opening not less than 7 feet (2134 mm) above the top of the balcony.
> 3. Separation from the interior of the building is not required for an exterior *stairway* located in a building or structure that is permitted to have unenclosed interior *stairways* in accordance with Section 1022.
> 4. Separation from the interior of the building is not required for exterior *stairways* connected to open ended *corridors*, provided that:
> 4.1. The building, including *corridors* and ~~stairs~~ stairways, is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
> 4.2. The open-ended *corridors* comply with Section 1018.

4.3. The open-ended *corridors* are connected on each end to an exterior *exit stairway* complying with Section 1026.
4.4. At any location in an open-ended *corridor* where a change of direction exceeding 45 degrees (0.79 rad) occurs, a clear opening of not less than 35 square feet (3 m2) or an exterior *stairway* shall be provided. Where clear openings are provided, they shall be located so as to minimize the accumulation of smoke or toxic gases.

IFC 1104.23 Stairway floor number signs. Existing ~~stairs~~ stairways shall be marked in accordance with Section 1022.8.

IFC CHAPTER 33
FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

IFC SECTION 3313 (IBC [F] 3311; IEBC [F] 1506.1)
STANDPIPES

IFC 3313.1 (IBC [F] 3311.1; IEBC [F] 1506.1) Where required. In buildings required to have standpipes by Section 905.3.1, no fewer than one standpipe shall be provided for use during construction. Such standpipes shall be installed when the progress of construction is not more than 40 feet (12 192 mm) in height above the lowest level of fire department vehicle access. Such standpipe shall be provided with fire department hose connections at accessible locations adjacent to usable ~~stairs~~ stairways. Such standpipes shall be extended as construction progresses to within one floor of the highest point of construction having secured decking or flooring.

IFC CHAPTER 57
FLAMMABLE AND COMBUSTIBLE LIQUIDS

IFC SECTION 5704
STORAGE

IFC 5704.2.9.4 ~~Stairs~~ Stairways, platforms and walkways. ~~Stairs~~ Stairways, platforms and walkways shall be of noncombustible construction and shall be designed and constructed in accordance with NFPA 30 and the *International Building Code*.

IFC 5706.5.1.12 Loading racks. Where provided, loading racks, ~~stairs~~ stairways or platforms shall be constructed of noncombustible materials. Buildings for pumps or for shelter of loading personnel are allowed to be part of the loading rack. Wiring and electrical equipment located within 25 feet (7620 mm) of any portion of the loading rack shall be in accordance with Section 5703.1.1.

PART IV – INTERNATIONAL EXISTING BUILDING CODE

IEBC CHAPTER 8
ALTERATIONS—LEVEL 2

IEBC SECTION 804
FIRE PROTECTION

IEBC 804.1.1 Corridor ratings. Where an approved automatic sprinkler system is installed throughout the story, the required fire-resistance rating for any corridor located on the story shall be permitted to be reduced in accordance with the *International Building Code*. In order to be considered for a corridor rating reduction, such system shall provide coverage for the ~~stairwell~~ stairway landings serving the floor and the intermediate landings immediately below.

IEBC SECTION 805
MEANS OF EGRESS

IEBC 805.3.1.1 Single-exit buildings. Only one exit is required from buildings and spaces of the following occupancies:

1. through 8. *(No change)*
9. In buildings of Group R-2 occupancy of any height with not more than four dwelling units per floor; with a smokeproof enclosure or outside ~~stair~~ stairway as an exit; and with such exit located within 20 feet (6096 mm) of travel to the entrance doors to all dwelling units served thereby.
10. *(No change)*

IEBC 805.3.1.2.1 Fire escape access and details. Fire escapes shall comply with all of the following requirements:

1. and 2. *(No change)*
3. Newly constructed fire escapes shall be permitted only where exterior ~~stairs~~ stairways cannot be utilized because of lot lines limiting the ~~stair~~ stairway size or because of the sidewalks, alleys, or roads at grade level.
4. Openings within 10 feet (3048 mm) of fire escape ~~stairs~~ stairways shall be protected by fire assemblies having minimum 3/4-hour fire-resistance ratings.
   Exception: Opening protection shall not be required in buildings equipped throughout with an approved automatic sprinkler system.
5. *(No change)*

IEBC 805.3.1.2.3 Dimensions. ~~Stairs~~ Stairways shall be at least 22 inches (559 mm) wide with risers not more than, and treads not less than, 8 inches (203 mm). Landings at the foot of ~~stairs~~ stairways shall not be less than 40 inches (1016 mm) wide by 36 inches (914 mm) long and located not more than 8 inches (203 mm) below the door.

IEBC 805.4.3 Door closing. In any *work area*, all doors opening onto an exit passageway at grade or an exit ~~stair~~ stairway shall be self-closing or automatic-closing by listed closing devices.

Exceptions:

1. Where exit enclosure is not required by the *International Building Code*.
2. Means of egress within or serving only a tenant space that is entirely outside the *work area*.

IEBC 805.4.3.1 Supplemental requirements for door closing. Where the *work area* exceeds 50 percent of the floor area, doors shall comply with Section 805.4.3 throughout the exit ~~stair~~ stairway from the *work area* to, and including, the level of exit discharge.

IEBC 805.9.1 Minimum requirement. Every required exit stairway that is part of the means of egress for any *work area* and that has three or more risers and is not provided with at least one handrail, or in which the existing handrails are judged to be in danger of collapsing, shall be provided with handrails for the full length of the ~~run of steps~~ stairway on at least one side. All exit stairways with a required egress width of more than 66 inches (1676 mm) shall have handrails on both sides.

IEBC 805.10.1 Minimum requirement. Every open portion of a ~~stair~~ stairway, landing, or balcony that is more than 30 inches (762 mm) above the floor or grade below and is not provided with guards, or those portions in which existing guards are judged to be in danger of collapsing, shall be provided with guards.

IEBC SECTION 806
ACCESSIBILITY

IEBC 806.2 ~~Stairs~~ Stairways and escalators in existing buildings. In *alterations* where an escalator or ~~stair~~ stairway is added where none existed previously, an accessible route shall be provided in accordance with Sections 1104.4 and 1104.5 of the *International Building Code*.

IEBC CHAPTER 9
ALTERATIONS—LEVEL 3

IEBC SECTION 902
SPECIAL USE AND OCCUPANCY

IEBC 902.2.1 Emergency controls. Emergency controls for boilers and furnace equipment shall be provided in accordance with the *International Mechanical Code* in all buildings classified as day nurseries, children's shelter facilities, residential childcare facilities, and similar facilities with children below the age of 21/2 years or that are classified as Group I-2 occupancies, and in group homes, teaching family homes, and supervised transitional living homes in accordance with the following:

1. Emergency shutoff switches for furnaces and boilers in basements shall be located at the top of the ~~stairs~~ stairways leading to the basement; and
2. Emergency shutoff switches for furnaces and boilers in other enclosed rooms shall be located outside of such room.

IEBC CHAPTER 11
ADDITIONS

IEBC SECTION 1102
HEIGHTS AND AREAS

IEBC 1102.2 Area limitations. No *addition* shall increase the area of an *existing building* beyond that permitted under the applicable provisions of Chapter 5 of the *International Building Code* for new buildings unless fire separation as required by the *International Building Code* is provided.

> **Exception:** In-filling of floor openings and nonoccupiable appendages such as elevator and exit ~~stair~~ stairway shafts shall be permitted beyond that permitted by the *International Building Code*.

IEBC CHAPTER 12
HISTORIC BUILDINGS

IEBC SECTION 1203
FIRE SAFETY

IEBC 1203.9 Stairway railings. Grand stairways shall be accepted without complying with the handrail and guard requirements. Existing handrails and guards at all ~~stairs~~ stairways shall be permitted to remain, provided they are not structurally *dangerous*.

IEBC SECTION 1205
CHANGE OF OCCUPANCY

IEBC 1205.11 ~~Stairs~~ Stairways and guards ~~railings~~. Existing stairways shall comply with the requirements of these provisions. The *code official* shall grant alternatives for stairways and ~~railings~~ guards if alternative stairways are found to be acceptable or are judged to meet the intent of these provisions. Existing stairways shall comply with Section 1203.

> **Exception:** For buildings less than 3,000 square feet (279 m2), existing conditions are permitted to remain at all ~~stairs~~ stairways and ~~rails~~ guards.

IEBC Resource A

2.1 Preliminary evaluation

Exterior Nonbearing Walls: The fire resistance of the exterior walls is important for two reasons. These walls (both bearing and non-bearing) are depended upon to: a) contain a fire within the building of origin; or b) keep an exterior fire *outside* the building. It is therefore important to indicate on the drawings where any openings are located as well as the materials and construction of all doors or shutters. The drawings should indicate the presence of wired glass, its thickness and framing, and identify the materials used for windows and door frames. The protection of openings adjacent to exterior means of escape (e.g., exterior ~~stairs~~ stairways, fire escapes) is particularly important. The ground floor drawing should locate the building on the property and indicate the precise distances to adjacent buildings.

The field investigator should be alert for differences in function as well as in materials and construction details. In general, the details within apartments are not as important as the major exit paths and ~~stairwells~~ exit stairways. The preliminary field investigation should attempt to determine the thickness of all walls. A term introduced below called “thickness design” will depend on an accurate (± 1/4 inch) determination. Even though this initial field survey is called “preliminary,” the data generated should be as accurate and complete as possible.

The field investigator should note the exact location from which observations are recorded. For instance, if a hole is found through a ~~stairwell~~ wall enclosing an exit stairway which allows a cataloguing of the construction details, the field investigation notes should reflect the location of the “find.” At the preliminary stage it is not necessary to core every wall; the interior details of construction can usually be determined at some location.

Doors: Doors to stairways and hallways represent some of the most important fire elements to be considered within a building. The uses of the spaces separated largely controls the level of fire performance necessary. Walls and doors enclosing ~~stairs~~ stairways or elevator shafts would normally require a higher level of performance than between a the bedroom and bath. The various uses are differentiated in Figure 1.

Rule 7: The fire endurance of asymmetrical constructions depends on the direction of heat flow.
This rule is a consequence of Rules 4 and 6 as well as other factors. This rule is useful in determining the relative protection of corridors and ~~stairwells~~ walls enclosing an exit stairway from the surrounding

spaces. In addition, there are often situations where a fire is more likely, or potentially more severe, from one side or the other.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

The intent is for the consistent use of the defined terms for 'stair' and 'stairway' throughout the all the codes. Stair is used when talking about individual steps or stepped aisles. Stairway is used when the provisions are applicable to a series of steps, or flights and landings between stories. In addition, when terms such as 'exit access stairway' and 'exit access ramp' follow each other in a list, consistently eliminate a couple of words by saying 'exit access stairway and ramp.' When the provisions are equally appropriate for ramps and stairways, ramps is added.

Cost Impact: None

E2-12

PART I – INTERNATIONAL BUILDING CODE

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – INTERNATIONAL MECHANICAL CODE

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART III – INTERNATIONAL FIRE CODE

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART IV – INTERNATIONAL EXISTING BUILDING CODE

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

202-STAIRWAY-E-BALDASSARRA-CTC.docx

E3 – 12

202, 405.7.1, 410.6.1, 411.7, [F] 414.7.2, 716.5.3, 1004.3, 1008.1.4.4, 1015, 1018.4, 1028.9 (IFC 5005.4.4, [B]1004.3, [B]1008.1.4.4, [B]1015, [B] 1018.4, [B]1028.9)

Proponent: Gregory R. Keith, Professional heuristic Development, representing The Boeing Company (grkeith@mac.com)

Revise as follows:

SECTION 202
DEFINITIONS

EXIT ACCESS POINT ~~DOORWAY~~. A ~~door or access~~ point along the path of egress travel from an occupied room, area or space where the path of egress enters an intervening room, corridor, exit access ~~stair~~ stairway or exit access ramp.

Revise as follows:

405.7.1 Number of exits. Each floor level shall be provided with no fewer than two exits. Where compartmentation is required by Section 405.4, each compartment shall have no fewer than one exit and shall also have no fewer than one exit access point ~~doorway~~ into the adjoining compartment.

410.6.1 Arrangement. Where two or more exits or exit access points ~~doorways~~ from the stage are required in accordance with Section 1015.1, no fewer than one exit or exit access point ~~doorway~~ shall be provided on each side of a stage.

411.7 Exit marking. Exit signs shall be installed at the required exit or exit access points ~~doorways~~ of amusement buildings in accordance with this section and Section 1011. Approved directional exit markings shall also be provided. Where mirrors, mazes or other designs are utilized that disguise the path of egress travel such that they are not apparent, approved and listed low-level exit signs that comply with Section 1011.5, and directional path markings listed in accordance with UL 1994, shall be provided and located not more than 8 inches (203 mm) above the walking surface and on or near the path of egress travel. Such markings shall become visible in an emergency. The directional exit marking shall be activated by the automatic fire detection system and the automatic sprinkler system in accordance with Section 907.2.12.2.

[F] 414.7.2 (IFC 5005.4.4) Dispensing, use and handling. Where hazardous materials having a hazard ranking of 3 or 4 in accordance with NFPA 704 are transported through corridors, interior exit stairways or ramps, or exit passageways there shall be an emergency telephone system, a local manual alarm station or an approved alarm-initiating device at not more than 150-foot (45 720 mm) intervals and at each exit and exit access point ~~doorway~~ throughout the transport route. The signal shall be relayed to an approved central, proprietary or remote station service or constantly attended on-site location and shall initiate a local audible alarm.

716.5.3 Door assemblies in corridors and smoke barriers. Fire door assemblies required to have a minimum fire
protection rating of 20 minutes where located in corridor walls or smoke barrier walls having a fire-resistance rating in accordance with Table 716.5 shall be tested in accordance with NFPA 252 or UL 10C without the hose stream test.

Exceptions:

1. Viewports that require a hole not larger than 1 inch (25 mm) in diameter through the door, have at least a 0.25-inch-thick (6.4 mm) glass disc and the holder is of metal that will not melt out where subject to temperatures of 1,700°F (927°C).

2. Corridor door assemblies in occupancies of Group I-2 shall be in accordance with Section 407.3.1.
3. Unprotected openings shall be permitted for corridors in multitheater complexes where each motion picture auditorium has at least one-half of its required exit or exit access points ~~doorways~~ opening directly to the exterior or into an exit passageway.
4. Horizontal sliding doors in smoke barriers that comply with Sections 408.3 and 408.8.4 in occupancies in Group I-3.

Revise as follows:

1004.3 (IFC [B] 1004.3) Posting of occupant load. Every room or space that is an assembly occupancy shall have the occupant load of the room or space posted in a conspicuous place, near the main exit or exit access point ~~doorway~~ from the room or space. Posted signs shall be of an approved legible permanent design and shall be maintained by the owner or authorized agent.

1008.1.4.4 (IFC [B] 1008.1.4.4) Security grilles. In Groups B, F, M and S, horizontal sliding or vertical security grilles are permitted at the main exit and shall be openable from the inside without the use of a key or special knowledge or effort during periods that the space is occupied. The grilles shall remain secured in the full-open position during the period of occupancy by the general public. Where two or more means of egress are required, not more than one-half of the exits or exit access points ~~doorways~~ shall be equipped with horizontal sliding or vertical security grilles.

SECTION 1015 (IFC [B] 1015)
EXIT AND EXIT ACCESS POINTS ~~DOORWAYS~~

1015.1 (IFC [B] 1015.1) Exits or exit access points ~~doorways~~ from spaces. Two exits or exit access doorways from any space shall be provided where one of the following conditions exists:

1. The occupant load of the space exceeds one of the values in Table 1015.1.

   Exceptions:

   1. In Group R-2 and R-3 occupancies, one means of egress is permitted within and from individual dwelling units with a maximum occupant load of 20 where the dwelling unit is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
   2. Care suites in Group I-2 occupancies complying with Section 407.4.3.
2. The common path of egress travel exceeds one of the limitations of Section 1014.3.
3. Where required by Section 1015.3, 1015.4, 1015.5, or 1015.6.

Where a building contains mixed occupancies, each individual occupancy shall comply with the applicable requirements for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1.

TABLE 1015.1 (IFC [B] TABLE 1015.1)
SPACES WITH ONE EXIT OR EXIT ACCESS POINT ~~DOORWAY~~

OCCUPANCY	MAXIMUM OCCUPANT LOAD
A, B, E, F, M, U	49
H-1, H-2, H-3	3
H-4, H-5, I-1, I-2, I-3, I-4, R	10
S	29

1015.1.1 (IFC [B] 1015.1.1) Three or more exits or exit access points ~~doorways~~. Three exits or exit access points ~~doorways~~ shall be provided from any space with an occupant load of 501 to 1,000. Four exits or exit access points ~~doorways~~ shall be provided from any space with an occupant load greater than 1,000.

1015.2 (IFC [B] 1015.2) Exit or exit access point ~~doorway~~ arrangement. Required exits shall be located in a manner that makes their availability obvious. Exits shall be unobstructed at all times. Exit and exit access points ~~doorways~~ shall be arranged in accordance with Sections 1015.2.1 and 1015.2.2.

1015.2.1 (IFC [B] 1015.2.1) Two exits or exit access points ~~doorways~~. Where two exits or exit access points ~~doorways~~ are required from any portion of the exit access, the exit doors or exit access points ~~doorways~~ 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 exit doors or exit access points ~~doorways~~. Interlocking or scissor stairs shall be counted as one exit stairway.

Exceptions:

1. Where interior exit stairways are interconnected by a 1-hour fire-resistance-rated corridor conforming to the requirements of Section 1018, the required exit separation shall be measured along the shortest direct line of travel within the corridor.
2. Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, the separation distance of the exit doors or exit access points ~~doorways~~ shall not be less than one-third of the length of the maximum overall diagonal dimension of the area served.

1015.2.2 (IFC [B] 1015.2.2) Three or more exits or exit access points ~~doorways~~. Where access to three or more exits is required, at least two exit doors or exit access points ~~doorways~~ shall be arranged in accordance with the provisions of Section 1015.2.1.

1015.3 (IFC [B] 1015.3) Boiler, incinerator and furnace rooms. Two exit access points ~~doorways~~ are required in boiler, incinerator and furnace rooms where the area is over 500 square feet (46 m2) and any fuel-fired equipment exceeds 400,000 British thermal units (Btu) (422 000 KJ) input capacity. Where two exit access points ~~doorways~~ are required, one is permitted to be a fixed ladder or an alternating tread device. Exit access points ~~doorways~~ shall be separated by a horizontal distance equal to one-half the length of the maximum overall diagonal dimension of the room.

1015.4 (IFC [B] 1015.4) Refrigeration machinery rooms. Machinery rooms larger than 1,000 square feet (93 m2) shall have not less than two exits or exit access points ~~doorways~~. Where two exit access points ~~doorways~~ are required, one such doorway is permitted to be served by a fixed ladder or an alternating tread device. Exit access points ~~doorways~~ shall be separated by a horizontal distance equal to one-half the maximum horizontal dimension of room.

All portions of machinery rooms shall be within 150 feet (45 720 mm) of an exit or exit access point ~~doorway~~. An increase in travel distance is permitted in accordance with Section 1016.1.

Doors shall swing in the direction of egress travel, regardless of the occupant load served. Doors shall be tight fitting and self-closing.

1015.5 (IFC [B] 1015.5) Refrigerated rooms or spaces. Rooms or spaces having a floor area larger than 1,000 square feet (93 m^2), containing a refrigerant evaporator and maintained at a temperature below 68°F (20°C), shall have access to not less than two exits or exit access points ~~doorways~~
.

Travel distance shall be determined as specified in Section 1016.1, but all portions of a refrigerated room or space shall be within 150 feet (45 720 mm) of an exit or exit access point ~~doorway~~ where such rooms are not protected by an approved automatic sprinkler system. Egress is allowed through adjoining refrigerated rooms or spaces.

Exception: Where using refrigerants in quantities limited to the amounts based on the volume set forth in the International Mechanical Code.

1015.6 (IFC [B] 1015.6) Day care means of egress. Day care facilities, rooms or spaces where care is provided for more than 10 children that are 2-1/2 years of age or less, shall have access to not less than two exits or exit access points ~~doorways~~.

1018.4 (IFC [B] 1018.4) Dead ends. Where more than one exit or exit access point ~~doorway~~ is required, the exit access shall be arranged such that there are no dead ends in corridors more than 20 feet (6096 mm) in length.

Exceptions:

1. In occupancies in Group I-3 of Occupancy Condition 2, 3 or 4 (see Section 308.5), the dead end in a corridor shall not exceed 50 feet (15 240 mm).
2. In occupancies in Groups B, E, F, I-1, M, R-1, R-2, R-4, S and U, where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the length of the dead-end corridors shall not exceed 50 feet (15 240 mm).
3. A dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.

1028.9 (IFC [B] 1028.9) Assembly aisles are required. Every occupied portion of any building, room or space used for assembly purposes that contains seats, tables, displays, similar fixtures or equipment shall be provided with aisles leading to exits or exit access points ~~doorways~~ in accordance with this section. Aisle accessways for tables and seating shall comply with Section 1028.10.1.

Reason: The term exit access doorway is a misnomer. By definition, the term exit access doorway includes any access point along the path of egress travel including exit access stairways and ramps. Given the literal nature of the term "doorway," without consulting the definition, most code users would not necessarily associate stairways and ramps when they read the word doorway. This distinction becomes important with the 2012 Edition of the IBC. E5-09/10 introduced the terms "exit access stairway" and "exit access ramp" into Chapter 10. These definitions are particularly significant because the concept of accessing exits at an adjacent story by way of exit access stairways and ramps has been formalized in the 2012 IBC.

There are several requirements that relate to the establishment of these terms. For instance, Section 1015.2 states, "Exit and exit access doorways shall be arranged in accordance with Sections 1015.2.1 and 1015.2.2." It is important that required exits and exit access stairways serving a given story are properly separated. The fact that the requirement refers only to exits and exit access doorways can be misleading. By requiring the separation of exits and exit access points, it is clear to code practitioners that any specified exit access component, whether it be a door, doorway, exit access stairway or exit access ramp, must comply with the provision.

It is not in the best interests of either the design or enforcement communities for the IBC to be misleading through its terminology. It is imperative that the IBC articulate what is intended in the clearest fashion possible. This is particularly important at a time when the IBC means of egress definitions and provisions are being technically and editorially adjusted. Approval of this proposal will increase uniformity in the application of fundamental means of egress provisions.

Cost Impact: None

E3-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

202-Exit access doorway-E-Keith.doc

E4 – 12
202, 1026.3 (IFC [B] 1026.3)

Proponent: Gregory R. Keith, Professional heuristic Development, representing The Boeing Company (grkeith@mac.com)

Revise as follows:

SECTION 202
DEFINITIONS

EXIT ACCESS RAMP. An ~~interior~~ *ramp* that is not a required *interior* or *exterior exit ramp*.

EXIT ACCESS STAIRWAY. An ~~interior~~ *stairway* that is not a required *interior* or *exterior exit stairway*.

EXTERIOR EXIT RAMP. An exit component that serves to meet one or more means of egress design requirements, such as required number of exits or exit access travel distance, and is open to yards, courts or public ways.

EXTERIOR EXIT STAIRWAY~~, EXTERIOR~~. An exit component that serves to meet one or more means of egress design requirements, such as required number of exits or exit access travel distance, and is open to ~~that is open on at least one side, except for required structural columns, beams, handrails and guards. The adjoining open areas shall be either~~ yards, courts or public ways. ~~The other sides of the exterior stairway need not be open.~~

INTERIOR EXIT RAMP. An *exit* component that serves to meet one or more *means of egress* design requirements, such as required number of *exits* or *exit access* travel distance, and provides for a protected path of egress travel to the *exit discharge* or *public way.*

INTERIOR EXIT STAIRWAY. An *exit* component that serves to meet one or more *means of egress* design requirements, such as required number of *exits* or *exit access* travel distance, and provides for a protected path of egress travel to the *exit discharge* or *public way.*

RAMP. A walking surface that has a running slope steeper than one unit vertical in 20 units horizontal (5-percent slope).

STAIRWAY. One or more *flights* of *stairs*, either exterior or interior, with the necessary landings and platforms connecting them, to form a continuous and uninterrupted passage from one level to another.

~~**STAIRWAY, INTERIOR.** A stairway not meeting the definition of an exterior stairway.~~

Revise as follows:

1026.3 (IFC [B] 1026.3) Open side. *Exterior exit stairways* and *ramps* serving as an element of a required *means of egress* shall be open on at least one side, except for required structural columns, beams, handrails and guards. An open side shall have a minimum of 35 square feet (3.3 m^2) of aggregate open area adjacent to each floor level and the level of each intermediate landing. The required open area shall be located not less than 42 inches (1067 mm) above the adjacent floor or landing level.

Reason: Several new means of egress terms were created and defined in the 2012 Edition of the International Building Code. They include, "EXIT ACCESS STAIRWAY," "EXIT ACCESS RAMP," "INTERIOR EXIT STAIRWAY" and "INTERIOR EXIT RAMP." These, and other terms, are fundamental to the design of any means of egress system. There is a precise relationship between these terms. It is proposed to modify the definition of both "EXIT ACCESS STAIRWAY" and "EXIT ACCESS RAMP" by deleting the word "interior." This is appropriate in that the exit access can be exterior to the building and changes in floor level can occur along the path of egress travel. Since an exit access stairway or ramp can be interior or exterior to the building, it is clarified that they are not exterior exit stairways or ramps as well.

Exterior exit stairways and exterior exit ramps are exit components according to the definition of “EXIT” in Section 202 and Section 1022.1. Both of these terms are currently undefined in the IBC. There is, however, a definition for “STAIRWAY, EXTERIOR.” An exterior stairway is not a means of egress component, per se, in the IBC. It is proposed to replace the definition of “STAIRWAY, EXTERIOR” with a definition for “EXTERIOR EXIT STAIRWAY.” The proposed definition is consistent with the current definition except for the distinction that such stairways are open to yards, courts or public ways consistent with the requirements in Section 1026.4. Additionally, Section 1026.3 has been modified to add technical language formerly contained in the definition of “STAIRWAY, EXTERIOR” as regards in impact of structural columns, beams, handrails and guards on openness determination. A companion definition for exterior exit ramps has been created which is consistent with the proposed definition of exterior exit stairway.

Lastly, it is proposed to delete the current definition of “STAIRWAY, INTERIOR.” This definition is nonsensical, obsolete and out of current technical context. The current definition of "EXIT ACCESS STAIRWAY" effectively replaces this definition.

The definitions of “INTERIOR EXIT RAMP,” “INTERIOR EXIT STAIRWAY.” “RAMP” and “STAIRWAY” have been included for reference purposes so the relationship of the various terms can be seen.

In summary, the proposed modifications to these means of egress component definitions will provide necessary clarity for users who are designing or analyzing a means of egress system. It is imperative that IBC definitions be technically accurate and properly descriptive. Approval of this proposal will allow for more consistent interpretations and applications of important IBC means of egress provisions.

Cost Impact: None

E4-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

202-Exit access doorway-E-Keith.doc

E5 – 12

202, 909.20, 909.20.1, 909.20.2, 909.20.3.1, 909.20.3.2, 909.20.4.1, 909.20.4.4, 909.20.5, 909.20.6, 909.20.6.2, 1022.10.1, 1022.10.2 (IFC [B] 1022.10.1, 1022.10.2)

Proponent: Philip Brazil, P.E., Senior Engineer, Reid Middleton, Inc., representing Washington Association of Building Officials, Technical Code Development Committee

Revise as follows:

SECTION 202
DEFINITIONS

SMOKEPROOF ENCLOSURE. An *exit stairway* or *ramp* designed and constructed so that the movement of the products of combustion produced by a fire occurring in any part of the building into the enclosure is limited.

Revise as follows:

SECTION 909
SMOKE CONTROL SYSTEMS

909.20 Smokeproof enclosures. Where required by Section 1022.10, a *smokeproof enclosure* shall be constructed in accordance with this section. A *smokeproof enclosure* shall consist of an enclosed *interior exit stairway* or *ramp* that conforms to Section 1022.2 and an open exterior balcony or ventilated vestibule meeting the requirements of this section. Where access to the roof is required by the *International Fire Code*, such access shall be from the smokeproof enclosure where a smokeproof enclosure is required.

909.20.1 Access. Access to the ~~*stair*~~ *stairway* or *ramp* shall be by way of a vestibule or an open exterior balcony. The minimum dimension of the vestibule shall not be less than the required width of the *corridor* leading to the vestibule but shall not have a width of less than 44 inches (1118 mm) and shall not have a length of less than 72 inches (1829 mm) in the direction of egress travel.

909.20.2 Construction. The smokeproof enclosure shall be separated from the remainder of the building by not less than 2-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both. Openings are not permitted other than the required *means of egress* doors. The vestibule shall be separated from the *stairway* or *ramp* by not less than 2-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both. The open exterior balcony shall be constructed in accordance with the *fire-resistance rating* requirements for floor assemblies.

909.20.3.1 Balcony doors. Where access to the *stairway* or *ramp* is by way of an open exterior balcony, the door assembly into the enclosure shall be a *fire door assembly* in accordance with Section 716.5.

909.20.3.2 Vestibule doors. Where access to the *stairway* or *ramp* is by way of a vestibule, the door assembly into the vestibule shall be a *fire door assembly* complying with Section 715.4. The door assembly from the vestibule to the *stairway* or *ramp* shall have not less than a 20-minute *fire protection rating* complying with Section 716.5.

909.20.4.1 Vestibule doors. The door assembly from the *building* into the vestibule shall be a *fire door assembly* complying with Section 716.5.3. The door assembly from the vestibule to the *stairway* or *ramp* shall have not less than a 20-minute *fire protection rating* and meet the requirements for a smoke door assembly in accordance with Section 716.5.3. The door shall be installed in accordance with NFPA 105.

909.20.4.4 Stair shaft air movement system. The ~~*stair*~~ *stairway* or *ramp* shaft shall be provided with a dampered relief opening and supplied with sufficient air to maintain a minimum positive pressure of 0.10 inch of water (25 Pa) in the shaft relative to the vestibule with all doors closed.

909.20.5 ~~Stair~~ Stairway and ramp pressurization alternative. Where the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, the vestibule is not required, provided ~~that~~ each interior *exit stairway* or *ramp* ~~are~~ is pressurized to a minimum of 0.10 inches of water (25 Pa) and a maximum of 0.35 inches of water (87 Pa) in the shaft relative to the building measured with all *stairway* and *ramp* doors closed under maximum anticipated conditions of stack effect and wind effect.

909.20.6 Ventilating equipment. The activation of ventilating equipment required by the alternatives in Sections 909.20.4 and 909.20.5 shall be by smoke detectors installed at each floor level at an *approved* location at the entrance to the smokeproof enclosure. When the closing device for the ~~*stair*~~ *stairway* and ramp shaft and vestibule doors is activated by smoke detection or power failure, the mechanical equipment shall activate and operate at the required performance levels. Smoke detectors shall be installed in accordance with Section 907.3.

909.20.6.2 Standby power. Mechanical vestibule and ~~*stair*~~ *stairway* and ramp shaft ventilation systems and automatic fire detection systems shall be powered by an *approved* standby power system conforming to Section 403.4.8 and Chapter 27.

Revise as follows:

SECTION 1022 (IFC [B] 1022)
INTERIOR EXIT STAIRWAYS AND RAMPS

1022.10.1 (IFC [B] 1022.10.1) Termination and extension. A *smokeproof enclosure* or pressurized *stairway* or *ramp* shall terminate at an *exit discharge* or a *public way*. The *smokeproof enclosure* or pressurized *stairway* or *ramp* shall be permitted to be extended by an *exit passageway* in accordance with Section 1022.3. The *exit passageway* shall be without openings other than the *fire door assembly* required by Section 1022.3.1 and those necessary for egress from the *exit passageway*. The *exit passageway* shall be separated from the remainder of the building by 2-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both.

Exceptions:

1. Openings in the *exit passageway* serving a *smokeproof enclosure* are permitted where the *exit passageway* is protected and pressurized in the same manner as the *smokeproof enclosure*, and openings are protected as required for access from other floors.
2. Openings in the *exit passageway* serving a pressurized *stairway* or *ramp* are permitted where the *exit passageway* is protected and pressurized in the same manner as the pressurized *stairway* or *ramp*.
3. The *fire barrier* separating the smokeproof enclosure or pressurized *stairway* or *ramp* from the *exit passageway* is not required, provided the *exit passageway* is protected and pressurized in the same manner as the *smokeproof enclosure* or pressurized *stairway* or *ramp*.
4. A *smokeproof enclosure* or pressurized *stairway* or *ramp* shall be permitted to egress through areas on the *level of exit discharge* or vestibules as permitted by Section 1027.

1022.10.2 (IFC [B] 1022.10.2) Enclosure access. Access to the *stairway* or *ramp* within a *smokeproof enclosure* shall be by way of a vestibule or an open exterior balcony.

Exception: Access is not required by way of a vestibule or exterior balcony for *stairways* and *ramps* using the pressurization alternative complying with Section 909.20.5.

Reason: The addition of “ramp(s)” is for consistency with the language in Section 1022.10 (smokeproof enclosures and pressurized stairways and ramps), which requires interior exit stairways and ramps to be smokeproof enclosures or pressurized stairways or ramps in accordance with Section 909.20 where required by Section 403.5.4 (smokeproof enclosures in high-rise buildings) or 405.7.2 (smokeproof enclosures in underground buildings). In Sections 909.20.1, 909.20.4.4, 909.20.6 and 909.20.6.2, the change from “stair” to “stairway” is for consistency with the use of “stairway” elsewhere in Section 909.20. Based on our analysis of the 2012 IBC, all instances of “exit stairway” in provisions for or related to smokeproof enclosures, where the addition of “ramp” is warranted, are included in this proposal.

Cost Impact: The code change proposal will not increase the cost of construction.

E5-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

909.20-E-Brazil.doc

E6 – 12
202

Proponent: Gene Boecker, Code Consultants, Inc., representing self

Revise as follows:

202
DEFINITIONS

STAIR. A change in elevation, consisting of one or more ~~risers~~ steps providing occupant passage from one level to another.

STAIRWAY. One or more flights of stairs, either exterior or interior, with the necessary landings and platforms connecting them, to form a continuous and uninterrupted passage ~~from one level to another~~.

Reason: The intent is not to change the application of the terms Stair and Stairway but to use more common, consistent language and eliminate a circular definition, as it exists for "stair."

Stair: The term riser is deleted because it is not defined. To determine what a riser is, it is necessary to look in Section 1009 on Stairways. This is confusing because a "riser" is used to define a stair, but a riser doesn't exist unless it is associated with is a stair. Using "riser" in the definition is circular and ambiguous. The term "step" is used because it is more common and easier to understand. Whereas a riser, to be considered a code complying element, must meet certain criteria, a step is simply a change in the elevation. The term "step" is commonly used in various dictionaries in the definition of "stair," so it is common language usage.

It also eliminates the conflict with "risers" upon which people stand in theatrical performances and are connected by steps. A riser as used in theatrical performances is a change in elevation but is not used for occupant passage between levels. The code's usage of riser should be left to its specific application.

Throughout the IBC, the word "step" is used 51 times. Of those, 30 times it is in association with the type of element addressed. In the other 21 times, it is associated with other changes in elevation such as stepped footings. Hence, it is consistent with the concept of changed levels. The phrase "providing occupant passage" is added to provide distinction from these other types of steps. A stair does not include stepped footings because a stepped footing is not used for occupant passage.

Stairway: Because a stair exists within a stairway by definition, it is not necessary to repeat the phrase "passage from one level to another." That is included in the concept with the revised definition for "stair." Since a stairway includes the landings and platforms in addition to the stair, those must be included. As used in the stairway definition, the term "passage" is used differently so it should remain.

Cost Impact: None

E6-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

202-E-Stair-Boecker.doc

E7-12/13

202, 403.5.1, 505.2.3, 707.3.3, 707.5.1, 707.7.1, 711.4, 712.1.8, 712.1.12, 713.1, 1001.2, 1007.2, 1007.3, 1007.6.2, 1009.2-1009.3.1.8, 1010.2, 1011.1, 1015.1, 1015.2, 1015.2.1, 1015.2.1.1(new), 1015.2.2, 1015.2.3(new), 1015.2.3.1(new), 1016.3, 1018(new), 1026.6, 1027.1, 1028.5 (IFC [B] 1001.2, 1007.2, 1007.3, 1007.6.2, 1009.2-1009.3.1.8, 1010.2, 1011.1, 1015.1, 1015.2, 1015.2.1, 1015.2.1.1(new), 1015.2.2, 1015.2.3(new), 1015.2.3.1(new), 1016.3, 1018(new), 1026.6, 1027.1, 1028.5)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

SECTION 202
DEFINITIONS

EXIT ACCESS RAMP. An ~~interior~~ *ramp* that is not a required ~~*interior*~~ *exit ramp*.

EXIT ACCESS STAIRWAY. An ~~interior~~ *stairway* that is not a required ~~*interior*~~ *exit stairway*.

Revise as follows:

SECTION 1001
ADMINISTRATION

1001.2 (IFC [B] 1001.2) Minimum requirements. It shall be unlawful to alter a building or structure in a manner that will reduce the number of exits or the capacity of the means of egress to less than required by this code. Means of egress shall be designed to be continuous and unobstructed.

SECTION 1007 (IFC [B] 1007)
ACCESSIBLE MEANS OF EGRESS

1007.2 (IFC [B] 1007.2) Continuity and components. Each required *accessible means of egress* shall be continuous to a *public way* and shall consist of one or more of the following components:

1. *Accessible* routes complying with Section 1104.
2. *Interior exit stairways* complying with Sections 1007.3 and 1022.
3. ~~Interior~~ *exit access stairways* complying with Sections 1007.3 and ~~1009.3~~ 1018.2 or 1018.3.
4. Exterior *exit stairways* complying with Sections 1007.3 and 1026 and serving levels other than the *level of exit discharge*.
5. Elevators complying with Section 1007.4.
6. Platform lifts complying with Section 1007.5.
7. *Horizontal exits* complying with Section 1025.
8. *Ramps* complying with Section 1010.
9. *Areas of refuge* complying with Section 1007.6.
10. Exterior area for assisted rescue complying with Section 1007.7.

1007.3 (IFC [B] 1007.3) Stairways. In order to be considered part of an *accessible means of egress*, a *stairway* between stories shall have a clear width of 48 inches (1219 mm) minimum between *handrails* and shall either incorporate an *area of refuge* within an enlarged floor-level landing or shall be accessed from either an *area of refuge* complying with Section 1007.6 or a *horizontal exit*. *Exit access stairways* that connect levels in the same story are not permitted as part of an *accessible means of egress*.

Exceptions:

1. Exit access stairways providing means of egress from mezzanines are permitted as part of an accessible means of egress.
2~~1~~. The clear width of 48 inches (1219 mm) between *handrails* is not required in buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2.
3~~2~~. *Areas of refuge* are not required at *stairways* in buildings equipped throughout by an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2.
4~~3~~. The clear width of 48 inches (1219 mm) between *handrails* is not required for *stairways* accessed from a *horizontal exit*.
5~~4~~. *Areas of refuge* are not required at *stairways* serving *open parking garages*.
6~~5~~. *Areas of refuge* are not required for smoke protected seating areas complying with Section 1028.6.2.
7~~6~~. The *areas of refuge* are not required in Group R-2 occupancies.

1007.6.2 (IFC [B] 1007.6.2) Separation. Each *area of refuge* shall be separated from the remainder of the story by a *smoke barrier* complying with Section 709 or a *horizontal exit* complying with Section 1025. Each *area of refuge* shall be designed to minimize the intrusion of smoke.

Exception: *Areas of refuge* located within an enclosure for ~~*exit access stairways* or~~ *interior exit stairways*.

SECTION 1009 (IFC [B] 1009)
STAIRWAYS

1009.1 (IFC [B] 1009.1) General. Stairways serving occupied portions of a building shall comply with the requirements of this section.

~~**1009.2 (IFC [B] 1009.2) Interior exit stairways.** Interior exit stairways shall lead directly to the exterior of the building or shall be extended to the exterior of the building with an exit passageway conforming to the requirements of Section 1023, except as permitted in Section 1027.1.~~

~~**1009.2.1 (IFC [B] 1009.2.1) Where required.** Interior exit stairways shall be included, as necessary, to meet one or more means of egress design requirements, such as required number of exits or exit access travel distance.~~

~~**1009.2.2 (IFC [B] 1009.2.2) Enclosure.** All interior exit stairways shall be enclosed in accordance with the provisions of Section 1022.~~

~~**1009.3 (IFC [B] 1009.3) Exit access stairways.** *Relocated to 1018.3*~~

~~**1009.3.1 (IFC [B] 1009.3.1) Construction.** Where required, enclosures for exit access stairways shall be constructed in accordance with this section. Exit access stairway enclosures shall be constructed as fire barriers in accordance with Section 707 or horizontal assemblies in accordance with Section 711, or both.~~

~~**1009.3.1.1 (IFC [B] 1009.3.1.1) Materials.** Exit access stairway enclosures shall be of materials permitted by the building type of construction.~~

~~**1009.3.1.2 (IFC [B] 1009.3.1.2) Fire-resistance rating.** Exit access stairway enclosures shall have a fire-resistance rating of not less than 2 hours where connecting four stories or more, and not less than 1 hour where connecting less than four stories. The number of stories connected by the exit access stairway enclosures shall include any basements, but not any mezzanines. Exit access stairway enclosures shall have a fire-resistance rating not less than the floor assembly penetrated, but need not exceed 2 hours.~~

~~**1009.3.1.3 (IFC [B] 1009.3.1.3) Continuity.** Exit access stairway enclosures shall have continuity in~~

~~accordance with Section 707.5 for fire barriers or Section 711.4 for horizontal assemblies as applicable.~~

~~**1009.3.1.4 (IFC [B] 1009.3.1.4) Openings.** Openings in an exit access stairway enclosure shall be protected in accordance with Section 716 as required for fire barriers. Doors shall be self- or automatic-closing by smoke detection in accordance with Section 716.5.9.3.~~

~~**1009.3.1.4.1 (IFC [B] 1009.3.1.4.1) Prohibited openings.** Openings other than those necessary for the purpose of the exit access stairway enclosure shall not be permitted in exit access stairway enclosures.~~

~~**1009.3.1.5 (IFC [B] 1009.3.1.5) Penetrations.** Penetrations in an exit access stairway enclosure shall be protected in accordance with Section 714 as required for fire barriers.~~

~~**1009.3.1.5.1 (IFC [B] 1009.3.1.5.1) Prohibited penetrations.** Penetrations other than those necessary for the purpose of the exit access stairway enclosure shall not be permitted in exit access stairway enclosures.~~

~~**1009.3.1.6 (IFC [B] 1009.3.1.6) Joints.** Joints in an exit access stairway enclosure shall comply with Section 715.~~

~~**1009.3.1.7 (IFC [B] 1009.3.1.7) Ducts and air transfer openings.** Penetrations of an exit access stairway enclosure by ducts and air transfer openings shall comply with Section 717.~~

~~**1009.3.1.8 (IFC [B] 1009.3.1.8) Exterior walls.** Where exterior walls serve as a part of an exit access stairway enclosure, such walls shall comply with the requirements of Section 705 for exterior walls and the fire-resistance-rated enclosure requirements shall not apply.~~

(Renumber remaining sections)

SECTION 1010
RAMPS

~~**1010.2 (IFC [B] 1010.2) Enclosure.** All interior exit ramps shall be enclosed in accordance with the applicable provisions of Section 1022. Exit access ramps shall be enclosed in accordance with the provisions of Section 1009.3 for enclosure of stairways.~~

(Renumber remaining sections)

SECTION 1011 (IFC [B] 1011)
EXIT SIGNS

1011.1 (IFC [B] 1011.1) Where required. *Exits* ~~and *exit access* doors~~ shall be marked by an *approved exit* sign readily visible from any direction of egress travel. The path of egress travel to *exits* and within *exits* shall be marked by readily visible *exit* signs to clearly indicate the direction of egress travel in cases where the *exit* or the path of egress travel is not immediately visible to the occupants. Intervening *means of egress* doors within *exits* shall be marked by *exit* signs. *Exit* sign placement shall be such that no point in an *exit access corridor* or *exit passageway* is more than 100 feet (30 480 mm) or the *listed* viewing distance for the sign, whichever is less, from the nearest visible *exit* sign.

Exceptions:

1. *Exit* signs are not required in rooms or areas that require only one *exit* or *exit access*.
2. Main exterior *exit* doors or gates that are obviously and clearly identifiable as *exits* need not have *exit* signs where *approved* by the *building official*.
3. *Exit* signs are not required in occupancies in Group U and individual sleeping units or dwelling units in Group R-1, R-2 or R-3.

4. *Exit* signs are not required in dayrooms, sleeping rooms or dormitories in occupancies in Group I-3.
5. In occupancies in Groups A-4 and A-5, *exit* signs are not required on the seating side of vomitories or openings into seating areas where *exit* signs are provided in the concourse that are readily apparent from the vomitories. Egress lighting is provided to identify each vomitory or opening within the seating area in an emergency.

SECTION 1015 (IFC [B] 1015)
EXITS AND EXIT ACCESS DOORWAYS

1015.1 (IFC [B] 1015.1) Exits or exit access doorways from spaces. Two exits or exit access doorways from any space including mezzanines shall be provided where one of the following conditions exists:

1. The *occupant load* of the space exceeds one of the values in Table 1015.1.

   Exceptions:

   1. In Group R-2 and R-3 occupancies, one *means of egress* is permitted within and from individual dwelling units with a maximum *occupant load* of 20 where the dwelling unit is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
   2. Care suites in Group I-2 occupancies complying with Section 407.4.3.

2. The *common path of egress travel* exceeds one of the limitations of Section 1014.3.
3. Where required by Section 1015.3, 1015.4, 1015.5, or 1015.6.

Where a building contains mixed occupancies, each individual occupancy shall comply with the applicable requirements for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1.

1015.2 (IFC [B] 1015.2) Exit or exit access doorway arrangement. Required exits shall be located in a manner that makes their availability obvious. ~~Exits shall be unobstructed at all times.~~ Exits, ~~and~~ exit access doorways, and exit access stairways and ramps shall be arranged in accordance with Sections 1015.2.1 and 1015.2.2.

1015.2.1 (IFC [B] 1015.2.1) Two exits or exit access doorways. Where two *exits* or *exit access doorways* and exit access stairways and ramps are required from any portion of the *exit access*, the *exit* ~~doors~~ or *exit access doorways* and exit access stairways and ramps 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 *exit* ~~doors~~ or *exit access doorways* and exit access stairways and ramps. Interlocking or *scissor stairs* shall be counted as one *exit stairway*.

Exceptions:

1. Where interior exit stairways are interconnected by a 1-hour fire-resistance-rated corridor conforming to the requirements of Section 1018, the required exit separation shall be measured along the shortest direct line of travel within the corridor.
2. Where a building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2, the separation distance of the *exit* ~~doors~~ or *exit access doorways* and exit access stairways and ramps shall not be less than one-third of the length of the maximum overall diagonal dimension of the area served.

1015.2.1.1 (IFC [B] 1015.2.1.1) Measurement point. The separation distance required in Section 1015.2.1 shall be measured in accordance with the following:

1. The separation distance to exit or exit access doorways shall be measured to any point along the width of the doorway.
2. The separation distance to exit access stairways shall be measured to the closest riser.
3. The separation distance to exit access ramps shall be measured to the start of the ramp run.

1015.2.2 (IFC [B] 1015.2.2) Three or more exits or exit access doorways. Where access to three or more *exits* is required, at least two *exit* ~~doors or~~ *exit access doorways* shall be arranged in accordance with the provisions of Section 1015.2.1.

1015.2.3 (IFC [B] 1015.2.3) Remoteness of exit access stairways or ramps. Where two exit access stairways or ramps provide the required means of egress to exits at another story, the required separation distance shall be maintained for all portions of such exit access stairways or ramps.

1015.2.3.1 (IFC [B] 1015.2.3.1) Three or more exit access stairways or ramps. Where more than two exit access stairways or ramps provide the required means of egress, at least two shall be arranged in accordance with 1015.2.3.

SECTION 1016 (IFC [B] 1016)
EXIT ACCESS TRAVEL DISTANCE

1016.3 (IFC [B] 1016.3) Measurement. Exit access travel distance shall be measured from the most remote point within a story along the natural and unobstructed path of horizontal and vertical egress travel to the entrance to an exit.

~~**Exceptions**~~ **Exception**:

~~1.~~ In open parking garages, exit access travel distance is permitted to be measured to the closest riser of an exit access stairway or the closest slope of an exit access ramp.
~~2. In outdoor facilities with open exit access components, exit access travel distance is permitted to be measured to the closest riser of an exit access stairway or the closest slope of an exit access ramp.~~

SECTION 1018 (IFC [B] 1018)
EXIT ACCESS STAIRWAYS AND RAMPS

1018.1 (IFC [B] 1018.1) General. Exit access stairways and ramps serving as an exit access component in a means of egress system shall comply with the requirements of this section. The number of stories connected by exit access stairways and ramps shall include basements, but not mezzanines.

1018.2 (IFC [B] 1018.2) All occupancies. Exit access stairways and ramps that serve floor levels within a single story are not required to be enclosed.

1018.3 (IFC [B] 1018.3) ~~**1009.3(IFC [B] 1009.3)**~~ **Occupancies other than Group I-2 and I-3.** ~~**Exit access stairways.** Floor openings between stories created by exit access stairways shall be enclosed.~~ In other than Group I-2 and I-3 occupancies, floor openings containing exit access stairways or ramps that do not comply with one of the conditions listed in this section shall be enclosed with a shaft enclosure constructed in accordance with Section 713.

~~**Exceptions:**~~

1. ~~In other than Group I-2 and I-3 occupancies,~~ Exit access stairways and ramps that serve, or atmospherically communicate between, only two stories~~, are not required to be enclosed~~. Such interconnected stories shall not be open to other stories.
2. In Group R-1, R-2 or R-3 occupancies, exit access stairways and ramps connecting four stories or less serving and contained within ~~a single~~ ~~residential~~ an individual dwelling unit or

sleeping unit or live/work unit ~~in Group R-1, R-2 or R-3 occupancies are not required to be enclosed~~.

3. ~~In buildings with only Group B or M occupancies,~~ Exit access stairways and ramps in ~~openings are not required to be enclosed provided that the~~ buildings ~~is~~ equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, where the area of the ~~floor~~ vertical opening between stories does not exceed twice the horizontal projected area of the ~~exit access~~ stairway or ramp, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13. In other than Groups B and M occupancies, this provision is limited to openings that do not connect more than four stories.

~~4. In other than Groups B and M occupancies, exit access stairway openings are not required to be enclosed provided that the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the floor opening does not connect more than four stories, the area of the floor opening between stories does not exceed twice the horizontal projected area of the exit access stairway, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.~~

4~~5~~. Exit access stairways and ramps within an atrium complying with the provisions of Section 404 ~~are not required to be enclosed~~.

5~~6~~. Exit access stairways and ramps in open parking garages that serve only the parking garage ~~are not required to be enclosed~~.

6~~7~~. Exit access stairways and ramps serving ~~outdoor facilities where all portions of the means of egress are essentially open to the outside are not required to be enclosed~~ open-air seating complying with the exit access travel distance requirements of Section 1028.7.

~~8. Exit access stairways serving stages, platforms and technical production areas in accordance with Sections 410.6.2 and 410.6.3 are not required to be enclosed.~~

7~~9.~~ Exit access stairways and ramps serving ~~are permitted to be open between~~ the balcony, gallery or press box and the main assembly floor in occupancies such as theaters, places of religious worship, auditoriums and sports facilities.

~~10. In Group I-3 occupancies, exit access stairways constructed in accordance with Section 408.5 are not required to be enclosed.~~

1018.4 (IFC [B] 1018.4) Group I-2 and I-3 occupancies. In Group I-2 and I-3 occupancies, floor openings between stories containing exit access stairways or ramps are required to be enclosed with a shaft enclosure constructed in accordance with Section 713.

Exception: In Group I-3 occupancies, exit access stairways or ramps constructed in accordance with Section 408 are not required to be enclosed.

(Renumber Subsequent Sections)

SECTION 1026 (IFC [B] 1026)
EXTERIOR EXIT STAIRWAYS AND RAMPS

1026.6 (IFC [B] 1026.6) Exterior stairway and ramp protection. *Exterior exit stairways* and *ramps* shall be separated from the interior of the building as required in Section 1022.2. Openings shall be limited to those necessary for egress from normally occupied spaces.

Exceptions:

1. Separation from the interior of the building is not required for occupancies, other than those in Group R-1 or R-2, in buildings that are no more than two stories above *grade plane* where a *level of exit discharge* serving such occupancies is the first story above *grade plane*.
2. Separation from the interior of the building is not required where the *exterior exit stairway* or *ramp* is served by an exterior *ramp* or balcony that connects two remote *exterior stairways* or other *approved exits* with a perimeter that is not less than 50 percent open. To be considered open, the opening shall be a minimum of 50 percent of the height of the enclosing wall, with the top of the openings no less than 7 feet (2134 mm) above the top of the balcony.

3. ~~Separation from the interior of the building is not required for an *exterior stairway* or *ramp* located in a building or structure that is permitted to have unenclosed *exit access stairways* in accordance with Section 1009.3~~.
4. Separation from the interior of the building is not required for *exterior* *exit* *stairways* or *ramps* connected to open-ended *corridors*, provided that Items 3.1 ~~4.1~~ through 3.5 ~~4.5~~ are met:
   ~~4.1~~3.1. The building, including *corridors*, *stairways* or *ramps*, shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
   ~~4.2~~3.2. The open-ended *corridors* comply with Section 1018.
   ~~4.3~~3.3. The open-ended *corridors* are connected on each end to an *exterior exit stairway* or *ramp* complying with Section 1026.
   ~~4.4~~3.4. The *exterior walls* and openings adjacent to the *exterior exit stairway* or *ramp* comply with Section 1022.7.
   ~~4.5~~3.5. At any location in an open-ended *corridor* where a change of direction exceeding 45 degrees (0.79 rad) occurs, a clear opening of not less than 35 square feet (3.3 m2) or an *exterior stairway* or *ramp* shall be provided. Where clear openings are provided, they shall be located so as to minimize the accumulation of smoke or toxic gases.

SECTION 1027 (IFC [B] 1027)
EXIT DISCHARGE

1027.1 (IFC [B] 1027.1) General. *Exits* shall discharge directly to the exterior of the building. The *exit discharge* shall be at grade or shall provide direct access to grade. The *exit discharge* shall not reenter a building. The combined use of Exceptions 1 and 2 below shall not exceed 50 percent of the number and capacity of the required exits.

Exceptions:

1. A maximum of 50 percent of the number and capacity of *interior exit stairways* and *ramps* is permitted to egress through areas on the *level of exit discharge* provided all of the following are met:
   1.1 ~~Such~~ Discharge of interior exit stairways and ramps shall be provided with ~~enclosures egress to~~ a free and unobstructed path of travel to an exterior *exit* door and such *exit* is readily visible and identifiable from the point of termination of the enclosure.
   1.2 The entire area of the *level of exit discharge* is separated from areas below by construction conforming to the fire-resistance rating for the enclosure.
   1.3 The egress path from the *interior exit stairway* and *ramp* on the *level of exit discharge* is protected throughout by an *approved automatic sprinkler system*. All portions of the *level of exit discharge* with access to the egress path shall either be protected throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, or separated from the egress path in accordance with the requirements for the enclosure of *interior exit stairways* or *ramps*.
   1.4 Where a required interior exit stairway or ramp and an exit access stairway or ramp serve the same floor level and terminate at the same level of exit discharge, the termination of the exit access stairway or ramp and the exit discharge door of the interior exit stairway or ramp shall be separated by a distance of not less than 30 feet (9144 mm) or not less than one-fourth the length of the maximum overall diagonal dimension of the building, whichever is less. The distance shall be measured in a straight line between the exit discharge door from the interior exit stairway or ramp and the last tread of the exit access stairway or termination of slope of the exit access ramp.
2. A maximum of 50 percent of the number and capacity of the *interior exit stairways* and *ramps* is permitted to egress through a vestibule provided all of the following are met:
   2.1 The entire area of the vestibule is separated from areas below by construction conforming to the *fire-resistance rating* ~~for~~ of the interior exit stairway or ramp enclosure.

2.2 The depth from the exterior of the building is not greater than 10 feet (3048 mm) and the length is not greater than 30 feet (9144 mm).

2.3 The area is separated from the remainder of the *level of exit discharge* by construction providing protection at least the equivalent of *approved* wired glass in steel frames.

2.4 The area is used only for *means of egress* and *exits* directly to the outside.

3. *Horizontal exits* complying with Section 1025 shall not be required to discharge directly to the exterior of the building.

SECTION 1028 (IFC [B] 1028)
ASSEMBLY

1028.5 (IFC [B] 1028.5) Interior balcony and gallery means of egress. For balconies, galleries or press boxes having a seating capacity of 50 or more located in a building, room or space used for assembly purposes, at least two means of egress shall be provided, with one from each side of every balcony, gallery or press box ~~and at least one leading directly to an exit.~~

Revise as follows:

SECTION 403
HIGH-RISE BUILDINGS

403.5.1 Remoteness of interior exit stairways. Required *interior exit stairways* shall be separated by a distance not less than 30 feet (9144 mm) or not less than one-fourth of the length of the maximum overall diagonal dimension of the building or area to be served, whichever is less. The distance shall be measured in a straight line between the nearest points of the enclosure surrounding the *interior exit stairways*. In buildings with three or more *interior exit stairways,* no fewer than two of the *interior exit stairways* shall comply with this section. Interlocking or *scissor stairs* shall be counted as one *interior exit stairway.*

Revise as follows:

SECTION 505
MEZZANINES AND EQUIPMENT PLATFORMS

505.2.3 Openness. A *mezzanine* shall be open and unobstructed to the room in which such *mezzanine* is located except for walls not more than 42 inches (1067 mm) in height, columns and posts.

Exceptions:

1. *Mezzanines* or portions thereof are not required to be open to the room in which the *mezzanines* are located, provided that the *occupant load* of the aggregate area of the enclosed space is not greater than 10.
2. A *mezzanine* having two or more ~~*means of egress*~~ exits or access to exits is not required to be open to the room in which the *mezzanine* is located ~~if at least one of the *means of egress* provides direct access to an *exit* from the *mezzanine* level.~~
3. *Mezzanines* or portions thereof are not required to be open to the room in which the *mezzanines* are located, provided that the aggregate floor area of the enclosed space is not greater than 10 percent of the *mezzanine* area.
4. In industrial facilities, *mezzanines* used for control equipment are permitted to be glazed on all sides.
5. In occupancies other than Groups H and I, that are no more than two *stories* above *grade plane* and equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, a *mezzanine* having two or more *means of egress* shall not be required to be open to the room in which the *mezzanine* is located.

Revise as follows:

SECTION 707
FIRE BARRIERS

707.3.3 Enclosures for exit access stairways. The *fireresistance rating* of the fire barrier separating building areas from an exit access stairway or ramp shall comply with Section ~~1009.3.1.2~~ 713.4.

707.5.1 Supporting construction. The supporting construction for a *fire barrier* shall be protected to afford the required *fire-resistance rating* of the *fire barrier* supported. Hollow vertical spaces within a *fire barrier* shall be fireblocked in accordance with Section 718.2 at every floor level.

Exceptions:

1. The maximum required *fire-resistance rating* for assemblies supporting *fire barriers* separating tank storage as provided for in Section 415.8.2.1 shall be 2 hours, but not less than required by Table 601 for the building construction type.
2. Shaft enclosures shall be permitted to terminate at a top enclosure complying with Section 713.12.
3. Supporting construction for 1-hour *fire barriers* required by Table 509 in buildings of Type IIB, IIIB and VB construction is not required to be fire-resistance rated unless required by other sections of this code.
4. Interior exit stairway and ramp enclosures required by Section 1022.2 and exit access stairway and ramp enclosures required by ~~Section~~ ~~1009.3~~ Sections 1018.3 and 1018.4 shall be permitted to terminate at a top enclosure complying with Section 713.12.

707.7.1 Prohibited penetrations. Penetrations into enclosures for ~~exit access stairways, exit access ramps~~, interior exit stairways~~, interior exit~~ and ramps or an exit passageway shall be allowed only ~~when~~ where permitted by Section ~~1009.3.1.5,~~ 1022.5 or 1023.6~~, respectively~~.

SECTION 711
HORIZONTAL ASSEMBLIES

711.4 Continuity. Assemblies shall be continuous without openings, penetrations or joints except as permitted by this section and Sections 712.1, 714.4, 715, ~~1009.3~~ 1018 and 1022.1. Skylights and other penetrations through a fire-resistance-rated roof deck or slab are permitted to be unprotected, provided that the structural integrity of the fire-resistance-rated roof assembly is maintained. Unprotected skylights shall not be permitted in roof assemblies required to be fire-resistance rated in accordance with Section 705.8.6. The supporting construction shall be protected to afford the required *fire-resistance rating* of the *horizontal assembly* supported.

Exception: In buildings of Type IIB, IIIB or VB construction, the construction supporting the *horizontal assembly* is not required to be fire-resistance-rated at the following:

1. Horizontal assemblies at the separations of incidental uses as specified by Table 509, provided the required *fire-resistance rating* does not exceed 1 hour.
2. Horizontal assemblies at the separations of *dwelling units* and *sleeping units* as required by Section 420.3.
3. Horizontal assemblies at *smoke barriers* constructed in accordance with Section 709.

SECTION 712
VERTICAL OPENINGS

712.1 General. The provisions of this section shall apply to the vertical opening applications listed in Sections 712.1.1through 712.1.18.

712.1.1 Shaft enclosures. Vertical openings contained entirely within a shaft enclosure complying with Section 713 shall be permitted.

712.1.8 Two story openings. In other than Groups I-2 and I-3, a floor opening that is not used as one of the application listed in this section shall be permitted if it complies with all the items below.

1. Does not connect more than two stories.
~~2. Does not contain a stairway or ramp required by Chapter 10.~~
2~~3.~~ Does not penetrate a horizontal assembly that separates fire areas or smoke barriers that separate smoke compartments.
3~~4.~~ Is not concealed within the construction of a wall or a floor/ceiling assembly.
4~~5.~~ Is not open to a corridor in Group I and R occupancies.
5~~6.~~ Is not open to a corridor on nonsprinklered floors.
6~~7.~~ Is separated from floor openings and air transfer openings serving other floors by construction conforming to required shaft enclosures.

712.1.12 ~~Unenclosed~~ Exit access stairways and ramps. Vertical floor openings ~~created by~~ ~~unenclosed~~ containing exit access stairways or ramps in accordance with ~~Sections 1009.2 and 1009.3~~ Section 1018 shall be permitted.

SECTION 713
SHAFT ENCLOSURES

713.1 General. The provisions of this section shall apply to shafts required to protect openings and penetrations through floor/ceiling and roof/ceiling assemblies. ~~Exit access stairways and exit access ramps shall be protected in accordance with the applicable provisions of Section 1009.~~ Interior exit stairways and ~~interior exit~~ ramps shall be protected in accordance with the requirements of Section 1022.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

The most substantial part of this change is the relocation of exit access specific stair requirements from the general stair section 1009 to a stand alone section 1018. Another substantial purpose of this code change proposal is for coordination between the open stairway code change from this committee for the last cycle (E5-09/10) and other changes that occurred during the same cycle. In addition, there were areas that needed to be clarified as part of coordination. The CTC also reviewed the concerns raised in the E5 09/10 Public Comments and addressed some outstanding issues from the public comments. Below are the specific reason statements for each section proposed for change:

202 (and 1026.6 exception #3)-The word "interior" was deleted from the definition of exit access stairway and ramp. Generally, this is done because there is no need to restrict exit access to interior elements. Specifically, this was done in coordination with the proposed deletion of exception #3 to section 1026.6. Exception #3 was a holdover from when what are currently exit access stairs were exit stairs. Exception #3 was there to coordinate the allowance for an exterior exit stair to be unprotected when an interior exit stair would be allowed to be unprotected. E5 changed the unenclosed exit stair to an exit access stair. In keeping with that methodology this exception is being deleted and "interior" is being removed from the exit access stair and ramp definitions so that the provisions that allow an unenclosed exit access stair are equally applicable to interior or exterior stairways. Rather than use exception #3 to 1026.6 for a exterior stair without protection the exit access provisions would be used for the exterior stair.

1001.2 – The new sentence in 1001.2 was a requirement in two sentences in 1015.2 that is proposed to be relocated here as it is a more general requirement. This was done as part of some additional proposed revisions to section 1015.2 that will be explained below in section order.

1007.2 -This is another coordination change related to the relocation of the access stair provisions from 1009.3 to 1018.

1007.3 – The last sentence of the main paragraph states that exit access stairways connecting levels in the same story are not permitted as part of an accessible means of egress. While this is true for split level floors or stepped aisles, this should not be true for mezzanines. While they are considered part of the floor below for height and area requirements, mezzanines are required to be elevated over 7'-0" (Section 505.2) similar to a story change in level.

1007.6.2-The exception should only apply to exit stairways based on mandatory enclosure requirements for exit stairways. Exit access stairs may be open or enclosed with non-rated “enclosures” therefore the requirement needs to be clear that separation of areas of refuge serving exit access stairways must comply with 1007.6.2.

1009.2, 1009.3 and subsections– This proposed change will remove the specific requirements for exit access stairways for the general stairway section 1009. 1009 will remain a general stair design section for all stairway details that are not means of egress system specific such as tread and riser dimensions, headroom, widths, etc. The specific enclosure requirements regarding exit access stairs are proposed to be addressed in a new stand alone section, 1018. This is in keeping with the same organization already in chapter 10 for the specific protection requirements for interior exit stairways and ramps and exterior exit stairways and ramps, as well as exit passageways and horizontal exits, each having a dedicated section that addresses the specific protection requirements for each means of egress element. The idea is to separate the general requirements from the specific requirements with regards to each type of MOE element.

1009.3.1 through 1009.3.1.8 – These sections explain how to construct a rated shaft enclosure around an exit access stair when a fire rating is required based on floor penetration limits being exceeded to prevent vertical smoke and heat migration. They were deleted entirely and not relocated to 1018 because the new sections 1018.3 and 1018.4 are proposed to reference to Section 713 for floor opening enclosure construction requirements. The original concept in E5 09/10 was to repeat the shaft enclosure requirements in the exit access stair section as exit access stair enclosure construction requirements. It was decided that this added unneeded text to the code and because it was a duplicate of requirements based on 713 that a change to one section may not be made to the companion section and therefore has the potential to set up an inconsistency with the two code sections that are intended to be the same.

1010.2 – This section is proposed to be deleted because it is not necessary. Just as 1009 is the general requirements for stairs 1010 is the general requirements for ramps. The specific requirements are addressed in stand alone sections that do not need to be cross referenced from the general section or vise versa.

1011.1 – “Exit access doors” is proposed for deletion in the first sentence because marking the path of egress travel is addressed in the remainder of section and exit access doors are part of the path of egress travel.

1015.1 – Revised to include mezzanines to clarify a mezzanine is a space, not a story, for purposes of means of egress. This also clarifies the 2012 IBC revision to Section 505 where mezzanines now reference Chapter 10 for means of egress. 505.3 Egress was deleted from the 2009 edition and replaced with 505.2.2, which is just a reference to chapter 10.

1015.2 –The second sentence was moved to 1001.1 because it is a more general requirement. Exit access stairways and ramps is proposed to be added to the third sentence because by definition an exit access doorway is a point where a path of travel enters an unenclosed exit access stairway but not the stairway itself. Therefore, current code text will allow exit access stairs to diverge towards each other reducing the distance between the stairways to less than the minimum separation. This is the beginning of a few changes to section 1015 that will prohibit diverging exit access stairs to less than the required separation distance for exit access doorways. Further modifications detailed below detail arrangement of exit access stairways in addition to exit access doorways, therefore, the elements were added to 1015.2 for consistency with the next proposed changes to 1015.2.1 and 1015.2.2.

1015.2.1 and 1015.2.2- In three places the word “doors” was deleted after “exit” because exit stands on its own and does not need to specifically reference and exit door.

1015.2.1.1– When exit access stairs are used the point where the path of travel enters the stairway is by definition an “exit access doorway”. There is concern that there will be confusion regarding how to measure the distance between “exit access doorways” when unenclosed exit access stairways are used. The three measurement methods are proposed to be added to clearly state how to measure between doors, stairways and ramps when they need to meet separation requirements per section 1015.

1015.2.3 and 1015.2.3.1-This proposed section and sub-section are intended to require that the minimum separation distances between exit access stairways and ramps be maintain for the entire length of travel on the stairway or ramp. This is to prohibit stair and ramp runs that meet separation distance requirements at the first riser or beginning slope, from converging towards another stair or ramp such that the separation is reduced as the occupant goes up or down the stair or ramp run. Exit access stairs and ramps should maintain the required distance, just as doors, until egress travel over the ramp or stair is completed.

1016.3 – This is a companion change to 1018.3 exception #6 (pervious #7 to 1009.2.2) detailed below regarding outdoor facilities. The exception to 1018.3 was changed to match the requirements for open air seating as regulated by section 10128.7, which allows unlimited travel distance in non-combustible construction that has open air seating and 400 feet in combustible construction. This change deletes the measurement of the travel distance to the closest riser in outdoor facilities and replaces it with the 400 foot or unlimited travel distance per 1028.7. The intent is to coordinate the various travel distance requirements regarding open air seating facilities.

New Section 1018 Exit access stairways and ramps-
Current section 1009.3 is proposed to be relocated to new section 1018. This is the most significant aspect of this code change proposal. This part of the proposed change creates a new stand alone code section for exit access stairway and ramp specific requirements so that the specific requirements for exit access stairs are separate from the general requirements. This is in keeping with the same organization already in chapter 10 for the specific protection requirements for interior exit stairways and ramps and exterior exit stairways and ramps, as well as exit passageways and horizontal exits, each having a dedicated section that addresses the specific protection requirements for each means of egress element. The specific enclosure requirements regarding exit access

stairs are proposed to be addressed in the new section, 1018. 1009 will remain a general stair design section for all stairway details that are not means of egress system specific such as tread and riser dimensions, headroom, widths, etc.

New 1018.1 – This is just a general scoping section. The statement that stories include basements but not mezzanines was included in this section.

New 1018.2 - This section clarifies that steps/ramps between levels within a story are always permitted to be open. Enclosure requirements are not required until openings between stories are created for exit access stairways/ramps.

New 1018.3 (relocated 1009.3) – This proposed section is the text relocated from 1009.3 with some changes to the format and some changes to the specific exemptions. The code change text is formatted with underlines and strike-troughs of the relocated 1009.3 text. Each specific change is explained as follows:

New 1018.3 As an alternative to the rule with exceptions format the section was reformatted with the exceptions reconfigured as conditions which permit unprotected floor openings for exit access stairs/ramps. This is in keeping with the philosophy introduced with the vertical openings code change approved for the 2012 edition, which reconfigured the shaft enclosure exceptions to options. As part of the reformatting the statement “not required to be enclosed” has been removed from the exceptions to the body of section 1018.3. Additionally “and ramps” has been added to each condition; this was done to make it clear that the entire section addresses ramps and stairs equally. Previous section 1009.3.1 and 1009.3.1.1 through 1009.3.1.8 were the enclosure requirements applicable when a floor opening is required to be protected with a fire rated enclosure; this was deleted and not relocated to 1018. These sections were deleted entirely and not relocated to 1018 because the new sections 1018.3 and 1018.4 are proposed to reference to Section 713 for floor opening enclosure construction requirements. The original concept in E5 09/10 was to repeat the shaft enclosure requirements in the exit access stair section as exit access stair enclosure construction requirements. It was decided that this added unneeded text to the code and because it was a duplicate of requirements based on 713 that a change to one section may not be made to the companion section and therefore has the potential to set up an inconsistency with the two code sections that are intended to be the same.

1018.3 Exception/condition #1-Group I-2 and I-2 deleted from condition #1 and moved down to a new Section 1018.4, which addresses group I-2 and I-1. The restriction that requires all group I-2 and I-3 stairway floor openings to be protected with a shaft has not been changed. The last sentence stating “such interconnected stories shall not be open to other stories” was added to clarify that the first condition can only be used when there are no openings to other stories, other than the two stories connected by the exit access stair. This is to prevent other permitted floor openings from being used with this allowed opening to create a staggered opening condition where more than two stories can atmospherically communicate.

1018.3 Exception/condition #2-The use group limitation of this condition was moved from the end of the sentence to the beginning to make it easier to use so the code user can quickly identify the scope of the condition. Additionally “live/work unit” was added to the types of units that can use this condition. Unenclosed exit access stairs are permitted in live/work units per 419.4 and live/work unit is a type of group R-2 unit distinct from dwelling units and sleeping units.

1018.3 Exception/condition #3 and Deletion of exception #4-The term floor opening was replaced with vertical opening because the opening in this condition can be between multiple floors. Exception #4 was the same exception as exception #3 except that it applies to groups other than B and M with the only difference being that the opening is limited to 4 stories for groups other than B and M. To reduce the amount of text and number of conditions the “other than group B and M” provision was moved to condition #3 as the last sentence in condition #3.

1018.3 Exception/condition #4 and #5-Just reformatting as described in the 1018.3 general explanation.

1018.3 Exception/condition #6- This condition was modified with input from Ed Roether, who is an expert in stadium design. “Outdoor facilities where all portions of the means of egress are essentially open to the outside” is proposed to be changed to “open-air seating”, which is the term used in section 1028.7 regarding travel distance in assembly seating. This condition is proposed to be changed to be coordinated with the requirements for open air seating as regulated by section 1028.7, which allows unlimited travel distance in non-combustible construction that has open air seating and 400 feet in combustible construction.

1018.3 previous exception #8-This exception was deleted because the 2012 IBC section 410.6 was modified to address the specific means of egress requirements for stages and technical production areas. New section 410.6.2 in the 2012 IBC specifically exempts stage and technical production areas from stair/ramp enclosure therefore this exception/condition is redundant and not needed.

1018.3 Exception/condition #7-Just reformatting as described in the 1018.3 general explanation.

1018.3 previous exception #10 deleted– This exception was moved to 1018.4

New 1018.4 – This is the relocated and reformatted requirement for group I-2 and I-3 exit access stair/ramp enclosure as part of the reformat from exceptions to conditions. Additionally, as noted above, the previous exception #10 was relocated as an exception to this requirement because it is a specific exception for group I-3.

1026.6 Exception #3 deletion- 1026.6 exception #3 was a holdover from when what are currently exit access stairs were exit stairs. Exception #3 was there to coordinate the allowance for an exterior exit stair to be unprotected when an interior exit stair would be allowed to be unprotected. E5 changed the unenclosed exit stair to an exit access stair. In keeping with that methodology this exception is being deleted and “interior” is being removed from the exit access stair and ramp definitions so that the provisions that

allow an unenclosed exit access stair are equally applicable to interior or exterior stairways. Rather than use exception #3 to 1026.6 for to create an exterior exit stair without protection the exit access provisions would be used for the exterior stair.

1027.1 exception #1.1-This is an editorial change that clarifies the exit stairways/ramps must have the free path of travel. This is a companion to the new section 1.4 described below.

1027.1 exception #1.4-This limitation is proposed to prevent an exit access stair and separate exit stair, which begin on the same floor, from termination to close together on the exit discharge floor. This is proposed so that one localized fire event on the exit discharge floor will not take out the termination of both means of egress components when an exit stair is permitted to discharge into the building. The 30 feet or ¼ diagonal separation distances were based on the 30 feet or ¼ diagonal that is specified for separation of interior stairways in high-rise section 403.5.1.

1028.5 and 505.2.3- "and at least one leading directly to an exit" is proposed for deletion. ICC staff asked for the committee to look at this do to numerous interpretive questions regarding what "leading directly to an exit" means. In both of these cases exit access stairs serving 2 stories could meet 1018.3 exception #1 and since neither condition qualifies as a story allowing exit access stairways is consistent with the provisions of 1018.3. Since "directly to an exit" can be interpreted to mean the mezzanine floor or balcony must have at least one exit at the mezzanine or balcony level that text is proposed to be deleted to allow exit access stairs to be used in both cases for both sets of stairways.

403.5.1-This is in response to E5 public comments. The intent of the separation required by this section is specific to the enclosure, not the stairway, therefore this language has been corrected.

505.2.3 – See reason statement for 1028.5.

707.3.3 and 707.5.1-These changes are to coordinate with the change in section numbering that occurred with moving the exit access stairway and ramp provisions from 1009 to 1018 and the change to reference section 713 for exit access stairway and ramp rated enclosure design requirements. References related to if an enclosure is required refer to sections in 1018, which is where the requirements for when a rated enclosure is required are proposed to be relocated. References related to the construction of the rated enclosure refer to section 713, which is where the requirements for how to rate the enclosure are located.

707.7.1-References to exit access stairways and ramps are proposed to be removed from this section because section 1018 is proposed to reference section 713 for exit access stairway and ramp rated enclosure design. Existing section 713.7.1 addresses prohibited openings therefore this reference is no longer needed in section 707.7.1.

711.4- See reason statement for 707.3.3 above.

712.1.8- Criteria #2 was proposed to be deleted and was approved to be deleted in E5 09/10 but was inadvertently reinstated do to a language change proposed to the same text in FS 56 09/10. Floor openings for open exit access stairways are intended to be protected in accordance with the exit access stair provision in 1009.3 (1018 per this proposal). If Criteria #2 is retained it will cause inconsistency with the exit access stairway provisions. It was the intent of E5 09/10 to have all exit access stair related opening protection requirements provided in the exit access stair provisions in chapter 10.

712.1.12 – This section has the terminology updated from "unenclosed" to "exit access" stairway to coordinate with terminology approved in E5-09/10. Additionally the section references are updated from 1009.3 to 1018 to coordinate with the relocation of exit access stair provisions from 1009.3 to 1018, which is explained further below in the reason statement. The purpose of the section is to act as a pointer to the exit access stairway vertical opening requirements that are all provided in proposed section 1018 (previous section 1009.3) for any vertical opening that contains an exit access stairway.

713.1 – This is another coordination change related to the relocation of the access stair provisions from 1009.3 to 1018. The enclosure requirements for exit access stairways in 1018 now reference Section 713 for rated enclosure construction requirements, rather than repeating the requirements in chapter 10, therefore this sentence is no longer needed.

Cost Impact: None

E7-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1009-E-BALDASSARRA

E8 – 12

707.3.3, 707.5.1, 707.6, 707.7.1, 712.1.12, 712.1.18, Table 716.5, Table 803.9, [F]909.5, 1007.2, 1007.6.2, 1009.2.2, 1009.3-1009.3.1.8, 1010.2, 1028.2; (IFC 909.5, [B]1007.2, [B]1007.6.2, [B]1009.2.2, [B]1009.3-1009.3.1.8, [B]1010.2, [B]1028.2)

Proponent: Vickie Lovell, Intercode Incorporated, representing Alliance for Fire & Smoke Containment & Control, Inc. (AFSCC) (Vickie@intercodeinc.com)

Revise as follows:

SECTION 707
FIRE BARRIERS

~~**707.3.3 Enclosures for exit access stairways.** The *fire-resistance rating* of the *fire barrier* separating building areas from an *exit access stairway* or *ramp* shall comply with Section 1009.3.1.2.~~

(Renumber subsequent section)

707.5.1 Supporting construction. The supporting construction for a *fire barrier* shall be protected to afford the required *fire-resistance rating* of the *fire barrier* supported. Hollow vertical spaces within a *fire barrier* shall be fireblocked in accordance with Section 718.2 at every floor level.

Exceptions:

1. The maximum required *fire-resistance rating* for assemblies supporting *fire barriers* separating tank storage as provided for in Section 415.8.2.1 shall be 2 hours, but not less than required by Table 601 for the building construction type.
2. Shaft enclosures shall be permitted to terminate at a top enclosure complying with Section 713.12.
3. Supporting construction for 1-hour *fire barriers* required by Table 509 in buildings of Type IIB, IIIB and VB construction is not required to be fire-resistance rated unless required by other sections of this code.
4. Interior exit stairway and ramp enclosures required by Section 1022.2 ~~and exit access stairway and ramp enclosures required by Section 1009.3~~ shall be permitted to terminate at a top enclosure complying with Section 713.12.

707.6 Openings. Openings in a *fire barrier* shall be protected in accordance with Section 716. Openings shall be limited to a maximum aggregate width of 25 percent of the length of the wall, and the maximum area of any single opening shall not exceed 156 square feet (15 m^2). Openings in enclosures for ~~exit access stairways and ramps,~~ interior exit stairways and ramps and exit passageways shall also comply with Sections 1022.3 and 1023.5, respectively.

Exceptions:

1. Openings shall not be limited to 156 square feet (15 m^2) where adjoining floor areas are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. Openings shall not be limited to 156 square feet (15 m^2) or an aggregate width of 25 percent of the length of the wall where the opening protective is a fire door serving enclosures for ~~exit access stairways, *exit access* ramps,~~ interior exit stairways and interior *exit* ramps.
3. Openings shall not be limited to 156 square feet (15 m^2) or an aggregate width of 25 percent of the length of the wall where the opening protective has been tested in accordance with ASTM E 119 or UL 263 and has a minimum *fire-resistance rating* not less than the *fire-resistance rating* of the wall.

4. Fire window assemblies permitted in atrium separation walls shall not be limited to a maximum aggregate width of 25 percent of the length of the wall.
5. Openings shall not be limited to 156 square feet (15 m^2) or an aggregate width of 25 percent of the length of the wall where the opening protective is a fire door assembly in a *fire barrier* separating an enclosure~~s~~ for ~~*exit access* stairways, *exit access* ramps,~~ interior exit stairways and interior exit ramps from an exit passageway in accordance with Section 1022.2.1.

707.7.1 Prohibited penetrations. Penetrations into enclosures for ~~*exit access* stairways, *exit access* ramps,~~ interior *exit* stairways, interior *exit* ramps or an exit passageway shall be allowed only when permitted by Section ~~1009.3.1.5,~~ 1022.5 or 1023.6, respectively.

SECTION 712
VERTICAL OPENINGS

712.1.12 Unenclosed stairs and ramps. Vertical ~~floor~~ stair openings created by unenclosed stairs or ramps in accordance with Sections 1009.2 ~~and 1009.3~~ shall be permitted.

~~**712.1.18 Openings otherwise permitted.** Vertical openings shall be permitted where allowed by other sections of this code.~~

SECTION 716
OPENING PROTECTIVES

Table 716.5
OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS

TYPE OF ASSEMBLY	REQUIRED WALL ASSEMBLY RATING (hours)	MINIMUM FIRE DOOR AND FIRE SHUTTER ASSEMBLY RATING (hours)	DOOR VISION PANEL SIZE	FIRE RATED GLAZING MARKING DOOR VISION PANEL*	MINIMUM SIDELIGHT/ TRANSOM ASSEMBLY RATING (hours)		FIRE-RATED GLAZING MARKING SIDELITE/TRANSOM PANEL	
					Fire protection	Fire resistance	Fire Protection	Fire resistance
Fire barriers having a required fire-resistance rating of 1-hour: Enclosures for shafts, ~~exit access stairways, exit access ramps,~~ interior exit stairways, interior exit ramps and exit passageway walls	1	1	100 sq. in.[c, d]	≤100 sq.in. = D-H-60 >100 sq.in. = D-H-T-60 or D-H-T-W-60	Not Permitted	1	Not Permitted	W-60

(Portions of table not shown remain unchanged)

Revise as follows:

SECTION 803
WALL AND CEILING FINISHES

TABLE 803.9 (IFC [B] Table 803.3)
INTERIOR WALL AND CEILING FINISH REQUIREMENJTS BY OCCUPANCY[k]

GROUP	SPRINKLERED[l]			NON-SPRINKLERED		
	Interior exit stairways, interior exit ramps and exit passageways[a, b]	Corridors ~~and enclosure for exit access stairways and exit access ramps~~	Rooms and enclosed spaces[c]	Interior exit stairways, interior exit ramps and exit passageways[a, b]	Corridors ~~and enclosure for exit access stairways and exit access ramps~~	Rooms and enclosed spaces[c]
I-3	A	A[j]	C	A	A	B

(No change to portions of table not shown)

a. through i. *(no change)*
j. Class B materials shall be permitted as wainscoting extending not more than 48 inches above the finished floor in corridors ~~and exit access stairways and ramps~~.
k. and L. *(no change)*

Revise as follows:

SECTION 909
SMOKE CONTROL SYSTEMS

[F] 909.5 (IFC 909.5) Smoke barrier construction. *Smoke barriers* shall comply with Section 710, and shall be constructed and sealed to limit leakage areas exclusive of protected openings. The maximum allowable leakage area shall be the aggregate area calculated using the following leakage area ratios:

1. Walls *A/A*w = 0.00100
2. Interior *exit stairways* and *ramps* and *exit passageways*:
   *A/A*w = 0.00035
3. ~~Enclosed *exit access stairways* and *ramps* and~~ All other shafts:
   *A/A*w = 0.00150
4. Floors and roofs: *A/A*F = 0.00050 where:
   A = Total leakage area, square feet (m2).
   *A*F = Unit floor or roof area of barrier, square feet (m2).
   *A*w = Unit wall area of barrier, square feet (m2).

The leakage area ratios shown do not include openings due to doors, operable windows or similar gaps. These shall be included in calculating the total leakage area.

Revise as follows:

SECTION 1007 (IFC [B] 1007)
ACCESSIBLE MEANS OF EGRESS

1007.2 (IFC [B] 1007.2) Continuity and components. Each required *accessible means of egress* shall be continuous to a *public way* and shall consist of one or more of the following components:

1. *Accessible* routes complying with Section 1104.
2. *Interior exit stairways* complying with Sections 1007.3 and 1022.
3. ~~Interior *exit access stairways* complying with Sections 1007.3 and 1009.3.~~
4. ~~4~~3. Exterior *exit stairways* complying with Sections 1007.3 and 1026 and serving levels other than the *level of exit discharge*.
5. ~~5~~4. Elevators complying with Section 1007.4.

~~6~~5. Platform lifts complying with Section 1007.5.
~~7~~6. *Horizontal exits* complying with Section 1025.
~~8~~7. *Ramps* complying with Section 1010.
~~9~~8. *Areas of refuge* complying with Section 1007.6.
~~10~~9.Exterior area for assisted rescue complying with Section 1007.7.

1007.6.2 (IFC [B] 1007.6.2) Separation. Each *area of refuge* shall be separated from the remainder of the story by a *smoke barrier* complying with Section 709 or a *horizontal exit* complying with Section 1025. Each *area of refuge* shall be designed to minimize the intrusion of smoke.

Exception: *Areas of refuge* located within an *interior exit stairway or interior exit ramp* enclosure ~~for *exit access stairways* or *interior exit stairways*~~.

SECTION 1009
STAIRWAYS

1009.2.2 (IFC [B] 1009.2.2) Enclosure. All *interior exit stairways* shall be enclosed in accordance with the provisions of Section 1022.

Exceptions:

1. In other than Group I-2 and I-3 occupancies, *stairways* that serve, or atmospherically communicate between, only two stories are not required to be enclosed. Any two such atmospherically interconnected floors shall not directly communicate with other floors.
2. *Stairways* serving and contained within a single residential *dwelling unit* or *sleeping unit* in Group R-1, R-2 or R-3 occupancies are not required to be enclosed.

1009.3 (IFC [B] 1009.3) Exit access stairways. ~~Floor openings between stories created by *exit access stairways* shall be enclosed.~~ Floor openings created by *exit access stairways* or *exit access ramps* shall comply with Section 712.

~~**Exceptions:**~~

~~1. In other than Group I-2 and I-3 occupancies, *exit access stairways* that serve, or atmospherically communicate between, only two stories are not required to be enclosed.~~
~~2. *Exit access stairways* serving and contained within a single residential *dwelling unit* or *sleeping unit* in Group R-1, R-2 or R-3 occupancies are not required to be enclosed.~~
~~3. In buildings with only Group B or M occupancies, *exit access stairway* openings are not required to be enclosed provided that the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, the area of the floor opening between stories does not exceed twice the horizontal projected area of the *exit access stairway*, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.~~
~~4. In other than Group B and M occupancies, *exit access stairway* openings are not required to be enclosed provided that the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, the floor opening does not connect more than four stories, the area of the floor opening between stories does not exceed twice the horizontal projected area of the *exit access stairway*, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.~~
~~5. *Exit access stairways* within an *atrium* complying with the provisions of Section 404 are not required to be enclosed.~~
~~6. *Exit access stairways* and *ramps* in open parking garages that serve only the parking garage are not required to be enclosed.~~
~~7. *Stairways* serving outdoor facilities where all portions of the *means of egress* are essentially open to the outside are not required to be enclosed.~~
~~8. *Exit access stairways* serving stages, platforms and *technical production areas* in accordance with Sections 410.6.2 and 410.6.3 are not required to be enclosed.~~

9. ~~*Stairways* are permitted to be open between the balcony, gallery or press box and the main assembly floor in occupancies such as theaters, *places of religious worship*, auditoriums and sports facilities.~~
10. ~~In Group I-3 occupancies, *exit access stairways* constructed in accordance with Section 408.5 are not required to be enclosed.~~

~~**1009.3.1 (IFC [B] 1009.3.1) Construction.** Where required, enclosures for *exit access stairways* shall be constructed in accordance with this section. *Exit access stairway* enclosures shall be constructed as *fire barriers* in accordance with Section 707 or *horizontal assemblies* in accordance with Section 711, or both.~~

~~**1009.3.1.1 (IFC [B] 1009.3.1.1) Materials.** *Exit access stairway* enclosures shall be of materials permitted by the building type of construction.~~

~~**1009.3.1.2 (IFC [B] 1009.3.1.2) Fire-resistance rating.** *Exit access stairway* enclosures shall have a *fire-resistance rating* of not less than 2 hours where connecting four stories or more, and not less than 1 hour where connecting less than four stories. The number of stories connected by the *exit access stairway* enclosures shall include any basements, but not any mezzanines. *Exit access stairway* enclosures shall have a *fire-resistance rating* not less than the floor assembly penetrated, but need not exceed 2 hours.~~

~~**1009.3.1.3 (IFC [B] 1009.3.1.3) Continuity.** *Exit access stairway* enclosures shall have continuity in accordance with Section 707.5 for *fire barriers* or Section 711.4 for *horizontal assemblies* as applicable.~~

~~**1009.3.1.4 (IFC [B] 1009.3.1.4) Openings.** Openings in an *exit access stairway* enclosure shall be protected in accordance with Section 716 as required for *fire barriers*. Doors shall be self- or automatic-closing by smoke detection in accordance with Section 716.5.9.3.~~

~~**1009.3.1.4.1 (IFC [B] 1009.3.1.4.1) Prohibited openings.** Openings other than those necessary for the purpose of the *exit access stairway* enclosure shall not be permitted in *exit access stairway* enclosures.~~

~~**1009.3.1.5 (IFC [B] 1009.3.1.5) Penetrations.** Penetrations in an *exit access stairway* enclosure shall be protected in accordance with Section 714 as required for *fire barriers*.~~

~~**1009.3.1.5.1 (IFC [B] 1009.3.1.5.1) Prohibited penetrations.** Penetrations other than those necessary for the purpose of the *exit access stairway* enclosure shall not be permitted in *exit access stairway* enclosures.~~

~~**1009.3.1.6 (IFC [B] 1009.3.1.6) Joints.** Joints in an *exit access stairway* enclosure shall comply with Section 715.~~

~~**1009.3.1.7 (IFC [B] 1009.3.1.7) Ducts and air transfer openings.** Penetrations of an *exit access stairway* enclosure by ducts and air transfer openings shall comply with Section 717.~~

~~**1009.3.1.8 (IFC [B] 1009.3.1.8) Exterior walls.** Where *exterior walls* serve as a part of an *exit access stairway* enclosure, such walls shall comply with the requirements of Section 705 for *exterior walls* and the fire-resistance-rated enclosure requirements shall not apply.~~

(Renumber subsequent sections)

SECTION 1010
RAMPS

1010.2 (IFC [B] 1010.2) Enclosure. All *interior exit ramps* shall be enclosed in accordance with the applicable provisions of Section 1022. *Exit access ramps* shall be enclosed in accordance with the provisions of Section 1009.3 ~~for enclosure of *stairways*~~.

SECTION 1028
ASSEMBLY

1028.2 (IFC [B] 1028.2) Assembly main exit. In a building, room or space used for assembly purposes that has an *occupant load* of greater than 300 ~~and is~~ shall be provided with a main *exit*, the main *exit* shall be of sufficient width to accommodate not less than one-half of the *occupant load*, but such width shall not be less than the total required width of all *means of egress* leading to the *exit*. Where the building is classified as a Group A occupancy, the main *exit* shall front on at least one street or an unoccupied space of not less than 10 feet (3048 mm) in width that adjoins a street or *public way*. In a building, room or space used for assembly purposes where there is no well-defined main *exit* or where multiple main *exits* are provided, *exits* shall be permitted to be distributed around the perimeter of the building provided that the total width of egress is not less than 100 percent of the required width.

Reason: This code change proposal aims to greatly simplify the requirements that were added to the 2012 IBC related to the provision of exit access stairs.

Exit access stairs have always been allowed by the IBC. Throughout the 2009 IBC, reference to exit access is found in many sections, including: 404.9, 405.7, 408.5, 408.6, 411.7, 414.7, 415.8, 505.3, 715.4, 907.2, and in virtually every section of Chapter 10. Exit access stairs are referenced specifically in 1002, 1007.3, 1016.1, and 1021.1. It is not the intent of this proposal to denigrate or eliminate the appropriate use of the exit access.

The 2012 IBC greatly complicated the use of exit access stairs, adding 854 words to create a maze of rules regarding where they are allowed, where they are not allowed, and precisely how they must be constructed.

The added complexity of the exit access stair provisions that had been added to IBC 2012 did not do anything to increase the safety of building occupants and of building egress. They were part of a comprehensive revision to Chapter 10 that was submitted for the 2012 IBC as code change E5-09/10. Many of the changes in that comprehensive change proposal did greatly improve the clarity and usability of Chapter 10. However, the immensely complex additions related to exit access stairs did not add to the clarity and usability of the code. Instead, it turned an easily understood feature, whose minimal guidance in pre-2012 IBC editions was considered to be fully adequate, into a complicated maze of allowances, rules and exceptions.

This code change now aims to bring back the simplicity of designing exit access stairs by removing over 800 words that were added to the 2012 IBC related to these, allowing exit access stairs to be constructed to the same simple rules as were satisfactorily used in the 2000, 2003, 2006 and 2009 editions of the IBC.

Below is an explanation of some of the individual edits made within this code change proposal, in case it is not self-evident in all cases as to why the change was needed to maintain internal consistency of Chapter 10 and the sections that reference it:

- 707.3.3: The deletion of section 707.3.3 is necessary with the elimination of 1009.3.1.2 referenced therein.
- 707.5.1: Exception 4 to section 707.5.1 contains language referencing 1009.3 that become irrelevant with this proposal. The reference to openings in enclosures for exit access stairways and ramps becomes unnecessary as the enclosure requirement previously at 1009.3 with its associated 10 exceptions is proposed to be replaced with text referencing 712 for a list of 18 possible conditions (options) which make a vertical opening acceptable.
- 707.6, 707.7: With the conditions by which a vertical opening can be acceptable being enumerated in section 712, the deletion of references to enclosures and opening protectives for *exit access stairways* and *exit access ramps* in sections 707.6 and 707.7.1 becomes unnecessary.
- 712.1.12: This section needs to be removed, otherwise a circular reference would be created wherein 712.1.12 send the user to 1009.3 for the conditions allowing a vertical opening, and then the (revised) 1009.3 would send the user back to section 712 to find an acceptable way to construct, or protect, or enclose the exit access stair.
- 712.1.18: Removing this section would ensure that all provisions within the code that allow options for vertical openings within a building would all be located in one single section, section 712. This proposed change does not add or remove any provisions as of today, as there are no vertical opening provisions elsewhere in the code that are not enumerated in section 712. However, having this article opens the door for future changes that would run counter to the overall code strategy of having all allowable vertical opening options listed in this one place.
- Tables 716.5: With the removal of the extensive rules governing the enclosure of exit access stairs, there is no longer any need to have specific rules for opening protectives that would be needed for the exit access stair enclosure. The opening protective would now be more simply decided simply based on the type/fire rating of wall (if any) that encloses an exit access stair.
- Table 803.9: With exit access stairs no longer having specially mandated and specially-designed enclosures, there is no more need to specify special types of finishes for the surfaces of the enclosure.
- 909.5: For the same logical reasons cited above for the changes to sections within Chapter 7, section 909.5 is proposed to redact the reference to *exit access stairways* and *exit access ramps*.
- 1007.2: With the deletion of the numerous custom design details for exit access enclosures (1009.3), there is no longer a need to point to that section and mandate compliance with it.
- 1009.2: So as not to lose two valid allowances for unenclosed exit access stairs that existed within the deleted sections of 1009.3, additions are proposed to Section 1009.2 to include those exceptions, permitting floor openings for convenience stairways and for exit access within a residential *dwelling unit* or *sleeping unit* in Group R-1, R-2, and R-3 occupancies.
- 1009.3: This is the very lengthy section that added a myriad of new construction requirements in IBC 2012 for the enclosure of exit access stairs, and then a series of exceptions to those enclosure construction requirements. . Without a requirement for enclosure, there is no need for any exceptions . Exit access stairs can then be open or enclosed, as long as they meet other requirements of the code, such as having the floor opening for a desired exit access stair meet one of the vertical opening allowances as established in Section 712. Section 712 provides a long list of methods to allow various vertical openings for

numerous applications, as has been studied in great detail by the ICC Code Technology Committee, Vertical Openings Study Group, as part of the 2009 and 2012 code change cycles.

- 1010.2: It is proposed to eliminate the reference to enclosure of stairways as this requirement is superfluous, given that enclosure is required in other sections of the code. The reference to section 1009.3 for enclosure of *exit access ramps* is to remain intact.
- 1028.2: During the preparation for this code change proposal, it was discovered that the requirement for a main exit in assembly occupancies with an occupant load greater than 300 persons had been dropped during the deliberations for the 2012 IBC without sufficient justification and contrary to all previous editions of the International Building Code. Thus, section 1028.2 is proposed to be revised by the substitution of the words "shall be" for the existing text "and is" to correct this requirement.

Cost Impact: The code change proposal will not increase the cost of construction.

E8-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

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E9 – 12

1001.2, 1003.6, 1005.4, 1005.5, 1005.6, 1007.6.1, 1008.1.1, 1008.1.4.1.1, 1008.1.9.4, 1008.3, 1009.4, 1009.11, 1010.6.1, 1012.9, 1017.1, 1017.5, 1018.2, Table 1018.2, 1018.3, 1019.1, 1023.2, 1025.1, 1027.1, 1027.2, 1027.4.1, 1028.2, 1028.4, 1028.6, 1028.6.1, 1028.6.2, Table 1028.6.2, 1028.6.3, 1028.9.2, 1028.9.3, 1028.9.4, 1028.9.6, 1028.10.1.1 (IFC [B] 1001.2, 1003.6, 1005.4, 1005.5, 1005.6, 1007.6.1, 1008.1.1, 1008.1.4.1.1, 1008.1.9.4, 1008.3, 1009.4, 1009.11, 1010.6.1, 1012.9, 1017.1, 1017.5, 1018.2, Table 1018.2, 1018.3, 1019.1, 1023.2, 1025.1, 1027.1, 1027.2, 1027.4.1, 1028.2, 1028.4, 1028.6, 1028.6.1, 1028.6.2, Table 1028.6.2, 1028.6.3, 1028.9.2, 1028.9.3, 1028.9.4, 1028.9.6, 1028.10.1.1)

Proponent: Gregory R. Keith, Professional heuristic Development, representing The Boeing Company (grkeith@mac.com)

Revise as follows:

1001.2 (IFC [B] 1001.2) Minimum requirements. It shall be unlawful to alter a building or structure in a manner that will reduce the number of *exits* or the minimum width or required capacity of the *means of egress* to less than required by this code.

1003.6 (IFC [B] 1003.6) Means of egress continuity. The path of egress travel along a *means of egress* shall not be interrupted by any building element other than a *means of egress* component as specified in this chapter. Obstructions shall not be placed in the minimum width or required capacity ~~width~~ of a *means of egress* component except projections permitted by this chapter. The minimum width or required capacity of a *means of egress* system shall not be diminished along the path of egress travel.

1005.4 (IFC [B] 1005.4) Continuity. The minimum width or required capacity of the means of egress required from any story of a building shall not be reduced along the path of egress travel until arrival at the public way.

1005.5. (IFC [B] 1005.5) Distribution of ~~egress~~ minimum width and required capacity. Where more than one exit, or access to more than one exit, is required, the means of egress shall be configured such that the loss of any one exit, or access to one exit, shall not reduce the available capacity or width to less than 50 percent of the required capacity or width.

1005.6 (IFC [B] 1005.6) Egress convergence. Where the means of egress from stories above and below converge at an intermediate level, the capacity of the means of egress from the point of convergence shall not be less than the largest minimum width or the sum of the required capacities for the stairways or ramps serving the two adjacent stories, whichever is larger.

1007.6.1 (IFC [B] 1007.6.1) Size. Each *area of refuge* shall be sized to accommodate one *wheelchair space* of 30 inches by 48 inches (762 mm by 1219 mm) for each 200 occupants or portion thereof, based on the *occupant load* of the *area of refuge* and areas served by the *area of refuge*. Such *wheelchair spaces* shall not reduce the ~~required~~ *means of egress* minimum width or required capacity ~~width~~. Access to any of the required *wheelchair spaces* in an *area of refuge* shall not be obstructed by more than one adjoining *wheelchair space*.

1008.1.1 (IFC [B] 1008.1.1) Size of doors. The ~~minimum width~~ required capacity of each door opening shall be sufficient for the *occupant load* thereof and shall provide a minimum clear width of 32 inches (813 mm). Clear openings of doorways with swinging doors shall be measured between the face of the door

and the stop, with the door open 90 degrees (1.57 rad). Where this section requires a minimum clear width of 32 inches (813 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 32 inches (813 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. *Means of egress* doors in a Group I-2 occupancy used for the movement of beds shall provide a clear width not less than $41^1/_2$ inches (1054 mm). The height of door openings shall not be less than 80 inches (2032 mm).

Exceptions:

1 through 8. *(no change)*

1008.1.4.1.1 (IFC [B] 1008.1.4.1.1) Egress component. A revolving door used as a component of a *means of egress* shall comply with Section 1008.1.4.1 and the following three conditions:

1. Revolving doors shall not be given credit for more than 50 percent of the minimum width or required ~~egress~~ capacity.
2. Each revolving door shall be credited with a capacity based on no more than a 50-person ~~capacity~~ occupant load.
3. Each revolving door shall be capable of being collapsed when a force of not more than 130 pounds (578 N) is applied within 3 inches (76 mm) of the outer edge of a wing.

1008.1.9.4 (IFC [B] 1008.1.9.4) Bolt locks. Manually operated flush bolts or surface bolts are not permitted.

Exceptions:

1. On doors not required for egress in individual dwelling units or sleeping units.
2. Where a pair of doors serves a storage or equipment room, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf.
3. Where a pair of doors serves an occupant load of less than 50 persons in a Group B, F or S occupancy, manually operated edge- or surface- mounted bolts are permitted on the inactive leaf. The inactive leaf shall contain no doorknobs, panic bars or similar operating hardware.
4. Where a pair of doors serves a Group B, F or S occupancy, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf provided such inactive leaf is not needed to meet egress ~~width~~ capacity requirements and the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1. The inactive leaf shall contain no doorknobs, panic bars or similar operating hardware.
5. Where a pair of doors serves patient care rooms in Group I-2 occupancies, self-latching edge- or surface-mounted bolts are permitted on the inactive leaf provided that the inactive leaf is not needed to meet egress ~~width~~ capacity requirements and the inactive leaf contains no doorknobs, panic bars or similar operating hardware.

1008.3 (IFC [B] 1008.3) Turnstiles. Turnstiles or similar devices that restrict travel to one direction shall not be placed so as to obstruct any required *means of egress*.

Exception: Each turnstile or similar device shall be credited with a capacity based on no more than a 50-person ~~capacity~~ occupant load where all of the following provisions are met:

1. Each device shall turn free in the direction of egress travel when primary power is lost, and upon the manual release by an employee in the area.
2. Such devices are not given credit for more than 50 percent of the required egress capacity or width.
3. Each device is not more than 39 inches (991 mm) high.
4. Each device has at least $16^1/_2$ inches (419 mm) clear width at and below a height of 39 inches (991 mm) and at least 22 inches (559 mm) clear width at heights above 39 inches (991 mm).

Where located as part of an *accessible route*, turnstiles shall have at least 36 inches (914 mm) clear at and below a height of 34 inches (864 mm), at least 32 inches (813 mm) clear width between 34 inches (864 mm) and 80 inches (2032 mm) and shall consist of a mechanism other than a revolving device.

1009.4 (IFC [B] 1009.4) Width and capacity. The ~~width~~ required capacity of *stairways* shall be determined as specified in Section 1005.1, but ~~such~~ the minimum width shall not be less than 44 inches (1118 mm). See Section 1007.3 for *accessible means of egress stairways*.

Exceptions:

1. through 4. *(no change)*

1009.11 (IFC [B] 1009.11) Curved stairways. Curved stairways with winder treads shall have treads and risers in accordance with Section 1009.7 and the smallest radius shall not be less than twice the minimum width or required capacity ~~width~~ of the stairway.

Exception: The radius restriction shall not apply to curved stairways for occupancies in Group R-3 and within individual dwelling units in occupancies in Group R-2.

1010.6.1 (IFC [B] 1010.6.1) Width and capacity. The minimum width and required capacity of a *means of egress ramp* shall not be less than that required for *corridors* by Section 1018.2. The clear width of a *ramp* between *handrails*, if provided, or other permissible projections shall be 36 inches (914 mm) minimum.

1012.9 (IFC [B] 1012.9) Intermediate handrails. *Stairways* shall have intermediate *handrails* located in such a manner that all portions of the *stairway* ~~width required for egress~~ minimum width or required capacity are within 30 inches (762 mm) of a *handrail*. On monumental *stairs*, *handrails* shall be located along the most direct path of egress travel.

1017.1 (IFC [B] 1017.1) General. Aisles and aisle accessways serving as a portion of the exit access in the means of egress system shall comply with the requirements of this section. Aisles or aisle accessways shall be provided from all occupied portions of the exit access which contain seats, tables, furnishings, displays and similar fixtures or equipment. The minimum width or required capacity ~~width~~ of aisles shall be unobstructed.

Exception: Encroachments complying with Section 1005.7.

1017.5 (IFC [B] 1017.5) Aisles in other than assembly spaces and Groups B and M. In other than rooms or spaces used for assembly purposes and Group B and M occupancies, the minimum clear aisle ~~width~~ capacity shall be determined by Section 1005.1 for the occupant load served, but the width shall not be less than 36 inches (914 mm).

1018.2 (IFC [B] 1018.2) Width and capacity. The ~~minimum width~~ required capacity of corridors shall be determined as specified in Section 1005.1, but the minimum width shall not be less than that specified in Table 1018.2 ~~shall be as determined in Section 1005.1~~.

Table 1018.2 (IFC [B] TABLE 1018.2)
MINIMUM CORRIDOR WIDTH

Occupancy	Width (min)
Any facilities not listed below	44 inches (1118 mm)
Access to and utilization of mechanical, plumbing or electrical systems or equipment	24 inches (610 mm)
With an required ~~occupancy capacity~~ occupant load of less than 50	36 inches (914 mm)
Within a dwelling unit	36 inches (914 mm)

Occupancy	Width (min)
In Group E with a corridor having a ~~required capacity~~ occupant load of 100 or more	72 inches (1829 mm)
In corridors and areas serving gurney traffic in occupancies where patients receive outpatient medical care, which causes the patient to be not capable of self-preservation	72 inches (1829 mm)
Group I-2 in areas where required for bed movement	96 inches (2438 mm)

1018.3 (IFC [B] 1018.3) Obstruction. The minimum width or required capacity ~~width~~ of corridors shall be unobstructed.

Exception: Encroachments complying with Section 1005.7.

1019.1 (IFC [B] 1019.1) General. Balconies used for egress purposes shall conform to the same requirements as *corridors* for minimum width, required capacity, headroom, dead ends and projections.

1023.2 (IFC [B] 1023.2) Width. The ~~minimum width~~ required capacity of exit passageways shall be determined as specified in Section 1005.1 but ~~such~~ the minimum width shall not be less than 44 inches (1118 mm), except that exit passageways serving an occupant load of less than 50 shall not be less than 36 inches (914 mm) in width. The minimum width or required capacity ~~width~~ of exit passageways shall be unobstructed.

Exception: Encroachments complying with Section 1005.7.

1025.1 (IFC [B] 1025.1) Horizontal exits. *Horizontal exits* serving as an *exit* in a *means of egress* system shall comply with the requirements of this section. A *horizontal exit* shall not serve as the only *exit* from a portion of a building, and where two or more *exits* are required, not more than one-half of the total number of *exits* or total *exit* minimum width or required capacity ~~width~~ shall be *horizontal exits*.

Exceptions:

1. Horizontal exits are permitted to comprise twothirds of the required exits from any building or floor area for occupancies in Group I-2.
2. Horizontal exits are permitted to comprise 100 percent of the exits required for occupancies in Group I-
3. At least 6 square feet (0.6 m2) of accessible space per occupant shall be provided on each side of the horizontal exit for the total number of people in adjoining compartments.

1027.1 (IFC [B] 1027.1) General. Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or shall provide direct access to grade. The exit discharge shall not reenter a building. The combined use of Exceptions 1 and 2 below shall not exceed 50 percent of the number and minimum width or required capacity of the required exits.

Exceptions:

1. A maximum of 50 percent of the number and minimum width or required capacity of interior exit stairways and ramps is permitted to egress through areas on the level of discharge provided all of the following are met:
   1.1 Such enclosures egress to a free and unobstructed path of travel to an exterior exit door and such exit is readily visible and identifiable from the point of termination of the enclosure.
   1.2 The entire area of the level of exit discharge is separated from areas below by construction conforming to the fire-resistance rating for the enclosure.

1.3 The egress path from the interior exit stairway and ramp on the level of exit discharge is protected throughout by an approved automatic sprinkler system. All portions of the level of exit discharge with access to the egress path shall either be protected throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, or separated from the egress path in accordance with the requirements for the enclosure of interior exit stairways or ramps.

2. A maximum of 50 percent of the number and minimum width or required capacity of the interior exit stairways and ramps is permitted to egress through a vestibule provided all of the following are met:
   - 2.1 The entire area of the vestibule is separated from areas below by construction conforming to the fire-resistance rating for the enclosure.
   - 2.2 The depth from the exterior of the building is not greater than 10 feet (3048 mm) and the length is not greater than 30 feet (9144 mm).
   - 2.3 The area is separated from the remainder of the level of exit discharge by construction providing protection at least the equivalent of approved wired glass in steel frames.
   - 2.4 The area is used only for means of egress and exits directly to the outside.
3. Horizontal exits complying with Section 1025 shall not be required to discharge directly to the exterior of the building.

1027.2 (IFC [B] 1027.2) Exit discharge width or capacity. The minimum width or required capacity of the exit discharge shall be not less than the ~~required discharge~~ minimum width or required capacity of the exits being served.

1027.4.1 (IFC [B] 1027.4.1) Width or capacity. The ~~minimum width~~ required capacity of egress courts shall be determined as specified in Section 1005.1, but ~~such~~ the minimum width shall not be less than 44 inches (1118 mm), except as specified herein. Egress courts serving Group R-3 and U occupancies shall not be less than 36 inches (914 mm) in width. The required capacity and width of egress courts shall be unobstructed to a height of 7 feet (2134 mm).

Exception: Encroachments complying with Section 1005.7.

Where an egress court exceeds the minimum required width and the width of such egress court is then reduced along the path of exit travel, the reduction in width shall be gradual. The transition in width shall be affected by a guard not less than 36 inches (914 mm) in height and shall not create an angle of more than 30 degrees (0.52 rad) with respect to the axis of the egress court along the path of egress travel. In no case shall the width of the egress court be less than the required ~~minimum~~ capacity.

1028.2 (IFC [B] 1028.2) Assembly main exit. A building, room or space used for assembly purposes that has an occupant load of greater than 300 and provided with a main exit, the main exit shall be of sufficient ~~width~~ capacity to accommodate not less than one-half of the occupant load, but such ~~width~~ capacity shall not be less than the total required ~~width~~ capacity of all means of egress leading to the exit. Where the building is classified as a Group A occupancy, the main exit shall front on at least one street or an unoccupied space of not less than 10 feet (3048 mm) in width that adjoins a street or public way. In a building, room or space used for assembly purposes where there is no well-defined main exit or where multiple main exits are provided, exits shall be permitted to be distributed around the perimeter of the building provided that the total ~~width~~ capacity of egress is not less than 100 percent of the required ~~width~~ capacity.

1028.4 (IFC [B] 1028.4) Foyers and lobbies. In Group A-1 occupancies, where persons are admitted to the building at times when seats are not available such persons shall be allowed to wait in a lobby or similar space, provided such lobby or similar space shall not encroach upon the minimum width or required ~~clear~~ capacity ~~width~~ of the means of egress. Such foyer, if not directly connected to a public street by all the main entrances or exits, shall have a straight and unobstructed corridor or path of travel to every such main entrance or exit.

1028.6 (IFC [B] 1028.6) ~~Width~~ Capacity of means of egress for assembly. The ~~clear width~~ capacity of aisles and other means of egress shall comply with Section 1028.6.1 where smoke-protected seating is not provided and with Section 1028.6.2 or 1028.6.3 where smoke-protected seating is provided. The ~~clear width~~ capacity shall be measured to walls, edges of seating and tread edges except for permitted projections.

1028.6.1 (IFC [B] 1028.6.1) Without smoke protection. The ~~clear width of the~~ means of egress shall provide ~~sufficient~~ capacity in accordance with all of the following, as applicable:

1. At least 0.3 inch (7.6 mm) of width for each occupant served shall be provided on stairs having riser heights 7 inches (178 mm) or less and tread depths 11 inches (279 mm) or greater, measured horizontally between tread nosings.
2. At least 0.005 inch (0.127 mm) of additional stair ~~width~~ capacity for each occupant shall be provided for each 0.10 inch (2.5mm)of riser height above 7 inches (178 mm).
3. Where egress requires stair descent, at least 0.075 inch (1.9 mm) of additional ~~width~~ capacity for each occupant shall be provided on those portions of stair ~~width~~ capacity having no handrail within a horizontal distance of 30 inches (762 mm).
4. Ramped means of egress, where slopes are steeper than one unit vertical in 12 units horizontal (8-percent slope), shall have at least 0.22 inch (5.6 mm) of ~~clear width~~ capacity for each occupant served. Level or ramped means of egress, where slopes are not steeper than one unit vertical in 12 units horizontal (8-percent slope), shall have at least 0.20 inch (5.1 mm) of ~~clear width~~ capacity for each occupant served.

1028.6.2 (IFC [B] 1028.6.2) Smoke-protected seating. The ~~clear width~~ capacity of the means of egress for smoke-protected assembly seating shall not be less than the occupant load served by the egress element multiplied by the appropriate factor in Table 1028.6.2. The total number of seats specified shall be those within the space exposed to the same smoke-protected environment. Interpolation is permitted between the specific values shown. A life safety evaluation, complying with NFPA 101, shall be done for a facility utilizing the reduced width requirements of Table 1028.6.2 for smoke-protected assembly seating.

Exception: For an outdoor smoke-protected assembly seating with an occupant load not greater than 18,000, the ~~clear width~~ capacity shall be determined using the factors in Section 1028.6.3.

TABLE 1028.6.2 (IFC [B] TABLE 1028.6.2)
~~WIDTH~~ CAPACITY OF AISLES FOR SMOKE-PROTECTED ASSEMBLY

TOTAL NUMBER OF SEATS IN THE SMOKEPROTECTED ASSEMBLY SEATING	INCHES OF ~~CLEAR WIDTH~~ CAPACITY PER SEAT SERVED			
	Stairs and aisle steps with handrails within 30 inches	Stairs and aisle steps without handrails within 30 inches	Passageways, doorways and ramps not steeper than 1 in 10 in slope	Ramps steeper than 1 in 10 in slope
Equal to or less than 5,000	0.200	0.250	0.150	0.165
10,000	0.130	0.163	0.100	0.110
15,000	0.096	0.120	0.070	0.077
20,000	0.076	0.095	0.056	0.062
Equal to or greater than 25,000	0.060	0.075	0.044	0.048

For SI: 1 inch = 25.4 mm.

1028.6.3 (IFC [B] 1028.6.3) ~~Width~~ Capacity of means of egress for outdoor smoke-protected assembly seating. The ~~clear width~~ capacity in inches (mm) of aisles and other means of egress shall be not less than the total occupant load served by the egress element multiplied by 0.08 (2.0 mm) where egress is by aisles and stairs and multiplied by 0.06 (1.52 mm) where egress is by ramps, corridors, tunnels or vomitories.

Exception: The ~~clear width~~ capacity in inches (mm) of aisles and other means of egress shall be permitted to comply with Section 1028.6.2 for the number of seats in the outdoor smoke-protected assembly seating where Section 1028.6.2 permits less ~~width~~ capacity.

1028.9.2 (IFC [B] 1028.9.2) Aisle ~~width~~ capacity. The aisle ~~width~~ shall provide sufficient ~~egress~~ capacity for the number of persons accommodated by the catchment area served by the aisle. The catchment area served by an aisle is that portion of the total space that is served by that section of the aisle. In establishing catchment areas, the assumption shall be made that there is a balanced use of all means of egress, with the number of persons in proportion to egress capacity.

1028.9.3 (IFC [B] 1028.9.3) Converging aisles. Where aisles converge to form a single path of egress travel, the required ~~egress~~ capacity of that path shall not be less than the combined required capacity of the converging aisles.

1028.9.4 (IFC [B] 1028.9.4) Uniform width and capacity. Those portions of aisles, where egress is possible in either of two directions, shall be uniform in minimum width or required capacity ~~width~~.

1028.9.6 (IFC [B] 1028.9.6) Assembly aisle obstructions. There shall be no obstructions in the minimum width or required capacity ~~width~~ of aisles except for handrails as provided in Section 1028.13.

1028.10.1.1 (IFC [B] 1028.10.1.1) Aisle accessway capacity and width for seating at tables. Aisle accessways serving arrangements of seating at tables or counters shall ~~have sufficient clear width to~~ conform to the capacity requirements of Section 1005.1 but shall not have less than a minimum of 12 inches (305 mm) of width plus 1/2 inch (12.7 mm) of width for each additional 1 foot (305 mm), or fraction thereof, beyond 12 feet (3658 mm) of aisle accessway length measured from the center of the seat farthest from an aisle.

Exception: Portions of an aisle accessway having a length not exceeding 6 feet (1829 mm) and used by a total of not more than four persons.

Reason: Section 1005 was improved in the 2012 Edition of the IBC. Formerly, the terms "width" and "capacity" were used inconsistently and often interchangeably. The section was re-titled to "Means of Egress Sizing." Section 1005.2 establishes the context of the term "width," explaining that it is the minimum width, in inches, of any means of egress component based on other Chapter 10 prescriptive minimum requirements. Section 1005.3 states the term "capacity" is the dimension, in inches, necessary to accommodate the design occupant load at a given point along the path of egress travel.

This proposal reviews the use of the terms "width" and "capacity" throughout Chapter 10 and places them in context with the stated specific technical requirement and the intent of Section 1005. Where minimum prescriptive dimensions of various means of egress components are referenced, the term "width" or "minimum width" is used. Where the calculated dimension based on the occupant load served is referenced, the term "capacity" or "required capacity" is used.

This proposal editorially corrects the misuse of the terms "width" and "capacity" and places them in context with the intent of 2012 IBC Section 1005. Approval will reduce confusion and increase consistency in the determination of IBC means of egress sizing provisions.

Cost Impact: None

E9-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1001.2-E-Keith.doc

E10-12/13
1003.3, 1003.3.3 (IFC [B] 1003.3, 1003.3.3)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1003.3 (IFC [B] 1003.3) Protruding objects. Protruding objects on circulations paths shall comply with the requirements of Sections 1003.3.1 through 1003.3.4.

1003.3.3 (IFC [B] 1003.3.3) Horizontal projections. ~~Structural elements, fixtures or furnishings shall not project horizontally from either side more than 4 inches (102 mm) over any walking surface between the heights of 27 inches (686 mm) and 80 inches (2032 mm) above the walking surface~~. Objects with leading edges more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the floor shall not project horizontally more than 4 inches (100 mm) into the circulation path.

Exception: *Handrails* are permitted to protrude 41/2 inches (114 mm) from the wall.

Reason: All existing buildings using the performance compliance alternative should meet the accessibility provisions for existing building, not just those undergoing a change of occupancy.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E10-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1003.3.3-E-Baldassarra.docx

E11 – 12
1003.4, Chapter 35 (IFC [B] 1003.4, Chapter 80)

Proponent: J. George Sotter, Sotter Engineering Corp., representing self (sottergeo@aol.com)

Revise as follows:

~~**1003.4 (IFC [B] 1003.4) Floor surface.** Walking surfaces of the means of egress shall have a slip-resistant surface and be securely attached.~~

1003.4 (IFC [B] 1003.4) Slip resistance. For a level floor that can get wet due to tracked-in precipitation, dripping raincoats, frequent spills, automatic sprinklers, condensation, buyer shall give consideration to a non-mandatory minimum British Pendulum Number (BPN) as specified by the HB197, Tables 2 and 3.

If anti-slip strips are used to provide the necessary slip resistance, they shall be placed perpendicular to the dominant direction of travel and no more than 1.5 inches (38 mm) apart and shall be maintained in good condition.

The minimum slip resistance shall be maintained throughout the lifetime of the flooring, whether the flooring is wet (if appropriate) or dry, clean or dirty.

If the British Pendulum Number of the flooring in use is up to 11 units lower than the minimum in the guidelines (e.g. BPN of as low as 24 when the minimum specified is 35) special actions should be considered: e.g. provide at least 15 feet of absorbent matting to dry shoes before pedestrians reach the bare floor; provide umbrella bags at entrances from outdoors; deploy warning notices; dry frequently with an oil-free dry mop; and/or mandate use of adequate anti-slip footwear the treads of which are in good condition. If BPN is lower than the action level the floor should be considered hazardous.

Add new standard to IBC Chapter 35, and IFC Chapter 80.

Standards Australia
GPO Box 5420
Sydney NSW 2001, Australia.

HB197:1999 "An Introductory Guide to the Slip Resistance of Pedestrian Surface Materials," 1003.4(IFC [B] 1003.4)

Reason: Purpose is to prevent slip-fall injuries and the resulting damages and litigation, as well as to prevent invesment in flooring that is hazardous in its intended use.

The present Code relies on *static* coefficient of friction, which has been scientifically proven to be an unreliable indicator of slip resistance for a walking pedestrian. This leads to slippery floors being purchased and installed, and eventually often results in injuries and lawsuits costing up to multiple millions of dollars. Previous recommended slip resistance safety standards quoted by the U.S. Department of Justice Access Board and based on static coefficient of friction were inadequate for assessing safety and were withdrawn by the Access Board (Starnes, 2011). There at present is no rational safety criterion for builders to use.

The British Pendulum *dynamic* method used for testing by the referenced standard has been endorsed by Ceramic Tile Institute of America since 2001. Through European Standard EN-13036–4, the pendulum method (invented by the U.S. National Bureau of Standards) is now a national standard in 49 nations, on four continents, many of which are part of or affiliated with the European Union.

The pendulum was most recently again validated vs. human traction tests (23 males, 57 females) in a University of California Biomechanics Research Laboratory study published by Powers, et al. in *J. Forensic Sci*, March 2010, Vol. 55, No. 2 (interscience.wiley.com).

A BPN minimum of 35 or higher for level floors has been endorsed by the UK government's Health and Safety Executive for many years, has been in continuous use in the UK since 1971, and has been endorsed by Ceramic Tile Institute of America since 2001. It was first published by the Greater London Council in 1971 and reaffirmed in 1985 after a 25-year study involving 3500 realworld field tests correlated with accident history.

More detailed minimum BPN safety standards based on the pendulum method have been used in Australia and New Zealand under AUS/NZ Standard HB 197–1999 for 11 years, following German standards that have been in effect even longer. These are not "one size fits all," but have appropriate proven consensus standards for different situations: e.g. external stair nosings,

bathrooms in hospital and aged care facilities, food courts, swimming pool decks, entry foyers, etc

The referenced Australian standard is needed because there is no native standard in the USA that has the proven validity, plus over a decade of experience in commercial use, of the standards developed in Australia, New Zealand, Germany, and the United Kingdom.

The current ICC code in effect specifies a non-valid test method (static coefficient of friction) for assessing safety, but gives no guidance as to what minimum test result is needed for safety in any particular situation. It therefore calls upon manufacturer and purchaser of flooring to apply expertise for which there is no common trustworthy reference other than the proposed standard.

Bibliography: References below are attached to this Email as separate files in pdf form.

1. American Society for Testing and Materials, Standard E303-93 (reapproved 2008), ASTM International, Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester, http://www.astm.org/Standards/E303.htm
2. British Standards, "Pendulum Testers," BS 7976, ISBN 0 580 40146 4, 20 August 2002, http://www.techstreet.com/cgibin/results, excerpt from part 3 attached
3. Ceramic Tile Institute of America Inc., Floor Safety Report #1: "Endorsement of Portable Test Methods and Slip Prevention Standards For Existing Flooring," http://www.ctioa.org/reports/cof18.html
4. Powers, C, Blanchette, M., et al., "Validation of Walkway Tribometers: Establishing a Reference Standard," *J. Forensic Sci.* March 2010, Vol. 55, No. 2, available online at: www.interscience.wiley.com
5. Sotter, G., Stone, S., et al., "Analysis of Floor-Shoe Static Friction Needed to Control a Wheelchair, Gurney, or Pallet Jack on a Ramp Manually," Proceedings of the XIX Annual International Occupational Ergonomics and Safety Conference, ISOES, Las Vegas, NV, USA, 27-29 June 2005, http://isoes.info, or available at no charge from J.G. Sotter at sottergeo@aol.com
6. Starnes, N., Chairperson, U.S. Access Board, letters to J. George Sotter of Sotter Engineering Corporation (Mission Viejo, CA) dated March 22, 2011 and May 17, 2011, available at no charge from J.G. Sotter at sottergeo@aol.com
7. Standards Australia, HB 197:1999: "An introductory guide to the slip resistance of pedestrian surface materials," http://infostore.saiglobal.com/store/Details.aspx?productid=568795
8. Australian/New Zealand Standard AS/NZS 4586:2004, Standards Australia and Standards New Zealand, 2004.
9. UK Slip Resistance Group 2011, "The Assessment of Floor Slip Resistance: The UK Slip Resistance Group Guidelines, Issue 4.0, September 2011", http://www.ukslipresistance.org.uk/index.php?id=guidelines_order
10. Greater London Council, GLC Bulletin No. 43, March 1971, London, United Kingdom, available in pdf form at SafetyDirectAmerica.com, "Testing and Instruments — Pendulum"
11. Greater London Council, GLC Bulletin 145, February 1985, ibid.

Cost Impact: The code change proposal will not increase the cost of construction. This is a cost-saving change for builders/building owners. Flooring manufacturers will supply pendulum test data for flooring that meets the above criteria. They presently provide static coefficient of friction data (inadequate for assessing safety, as discussed above) on many flooring products at no cost. *Static coefficient data are unnecessary and misleading,* and pendulum tests can be conducted instead by flooring manufacturers or preferably independent laboratories at the same cost. The pendulum tester is not patented or proprietary, and there are several manufacturers that supply it. In the 49 nations that specify the pendulum tester as a national standard for pedestrian slip resistance, no static coefficient of friction test is required.

Costs of damages and personal injury litigation to building owners will be substantially reduced. Liability insurance premiums will potentially be reduced for some owners. In addition, this code change will prevent ill-advised investment in flooring that is hazardous in its intended use.

Analysis: A review of the standard proposed for inclusion in the code, HB197, with regard to the ICC criteria for referenced standards (Section 3.6 of CP#28) will be posted on the ICC website on or before April 2, 2012.

E11-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1003.4-E-Sotter.doc

E12 – 12
1003.4.1 (New) [IFC [B] 1003.4.1 (New)]

Proponent: Eric Astrachan, Executive Director, Tile Council of North America, Inc. (eastrachan@tileusa.com)

Add new text as follows:

1003.4.1 (IFC [B] 1003.4.1) Ceramic and Porcelain Tile. Tiles specified for interior floor surfaces of the means of egress shall comply with ANSI A137.1, Section 6.2.2.1.10.

Reason: Currently, Section 1003.4 requires that walking surfaces of the means of egress be "slip resistant" with no method of measurement, quantitative threshold, or general principles to help the specifier, end-user, and code official.

The purpose of this revision is to provide these criteria for ceramic tiles used for interior floor surfaces of the means of egress. Section 6.2.2.1.10 of the ANSI A137.1-2012 standard for ceramic tile sets forth a quantitative minimum threshold, means of measurement, and general principles regarding slip resistance based on the consensus of a broad range of stakeholders.

Cost Impact: None

E12-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1003.4.1(new)-E-Astrachan.doc

E13 – 12
1003.7 (New) (IFC [B] 1003.7 (New)]

Proponent: Dennis Richardson, PE; Building Official, City of Salinas, representing Tri-Chapter (Peninsula, East Bay and Monterey Bay Chapters of ICC) (dennisrichardsonpe@yahoo.com)

Add new text as follows:

1003.7 (IFC [B] 1003.7) Maintenance of exits and exit access. The minimum number of required independent exits and exit access paths, once provided from any portion of the exit access or story, shall not be reduced or merged together.

(Renumber subsequent sections)

Reason: General Section 1003.6 adequately addresses the need to maintain egress component capacity throughout the means of egress system. There is no such section that serves to tie together and maintain the minimum number of independent exit paths moving from exit access, to exits, to exit discharge.

Cost Impact: This code change will not increase the cost of construction.

E13-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1003.7 (New)-E-Richardson.doc

E14 – 12

1003.6, 1004.1.1, 1004.1.1.1, 1004.1.1.2, 1004.1.2, 1005.3.1, 1005.4, 1015.1, 1020.1, 1021.2 (IFC [B] 1003.6, 1004.1.1, 1004.1.1.1, 1004.1.1.2, 1004.1.2, 1005.3.1, 1005.4, 1015.1, 1020.1, 1021.2)

Proponent: Gregory R. Keith, Professional heuristic Development, representing The Boeing Company (grkeith@mac.com)

Revise as follows:

1003.6 (IFC [B] 1003.6) Means of egress continuity. The path of egress travel along a *means of egress* shall not be interrupted by any building element other than a *means of egress* component as specified in this chapter. Obstructions shall not be placed in the required width of a *means of egress* except projections permitted by this chapter. ~~The required capacity of a *means of egress* system shall not be diminished along the path of egress travel.~~

~~1004.1.2~~ 1004.2 (IFC [B] ~~1004.1.2~~ 1004.2) Areas without fixed seating. The number of occupants shall be computed at the rate of one occupant per unit of area as prescribed in Table 1004.1.2. For rooms, areas or spaces without fixed seating, the occupant load shall not be less than that number determined by dividing the floor area under consideration by the occupant load factor assigned to the function of the space as set forth in Table 1004.1.2. Where an intended function is not listed in Table 1004.1.2, the building official shall establish a function based on a listed function that most nearly resembles the intended function.

(Renumber subsequent sections)

1005.1 (IFC [B] 1005.1) General. All portions of the means of egress system shall be sized in accordance with this section.

Exception: Means of egress complying with Section 1028.

~~1004.1.1~~ 1005.1.1 (IFC [B] ~~1004.1.1~~ 1005.1.1) Cumulative occupant loads. Where the path of egress travel includes intervening rooms, areas or spaces, ~~cumulative occupant loads~~ the required capacity shall be determined in accordance with this section.

~~1004.1.1.1~~ 1005.1.1.1 (IFC [B] ~~1004.1.1.1~~ 1005.1.1.1) Intervening spaces. Where occupants egress from one room, area or space through another, the ~~design occupant load~~ required capacity shall be based on ~~the cumulative~~ that portion of the occupant loads having required egress through adjacent ~~of all~~ rooms, areas or spaces added to the occupant load of the space under consideration to that point along the path of egress travel.

~~1004.1.1.2~~ 1005.1.1.2 (IFC [B] ~~1004.1.1.2~~ 1005.1.1.2) Adjacent levels. ~~The occupant load of a mezzanine or story with egress through a room, area or space on an adjacent level shall be added to the occupant load of that room, area or space.~~ Where interior and exterior exit stairways or ramps serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required capacity of such stairways or ramps serving that story. Where exit access stairways or ramps provide required access to an exit at an adjacent story, the required capacity of the adjacent story shall be based on that portion of the occupant load of the mezzanine or story having required egress through such adjacent story added to the occupant load of that story.

1005.3.1 (IFC [B] 1005.3.1) Stairways. The capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairway by a means of egress capacity factor of 0.3 inches (7.62 mm) per occupant. ~~Where stairways serve more than one story, only the occupant~~

~~load of each story considered individually shall be used in calculating the required capacity of the stairways serving that story.~~

Exception: For other than Group H and I-2 occupancies, the capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairway by a means of egress capacity factor of 0.2 inches (5.1 mm) per occupant in buildings equipped throughout with and automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

1005.4 (IFC [B] 1005.4) Continuity. The capacity of the means of egress required from any room, area, space, mezzanine or story of a building shall not be reduced along the path of egress travel until arrival at the public way.

1015.1 (IFC [B] 1015.1) Exits or exit access doorways from spaces. Two exits or exit access doorways from any room, area or space shall be provided where one of the following conditions exists:

1. The *occupant load* of the space exceeds one of the values in Table 1015.1. When occupants egress through the space, that portion of the occupant load having required egress through such space to that point along the path of egress travel shall be added to the occupant load of the space under consideration.

   Exceptions:

   1. In Group R-2 and R-3 occupancies, one *means of egress* is permitted within and from individual dwelling units with a maximum *occupant load* of 20 where the dwelling unit is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
   2. Care suites in Group I-2 occupancies complying with Section 407.4.

2. The *common path of egress travel* exceeds one of the limitations of Section 1014.3.
3. Where required by Section 1015.3, 1015.4, 1015.5, or 1015.6.

Once established, the required number of exits or exit access doorways shall be maintained until arrival at the exit discharge or public way.

Where a building contains mixed occupancies, each individual occupancy shall comply with the applicable requirements for that occupancy. ~~Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1.~~

1020.1 (IFC [B] 1020.1) General. *Exits* shall comply with Sections 1020 through 1026 and the applicable requirements of Sections 1003 through 1013. An *exit* shall not be used for any purpose that interferes with its function as a *means of egress*. Once a given level of exit protection is achieved, such level of protection shall not be reduced until arrival at the *exit discharge*. Within a building, once established, the required number of exits shall be maintained until arrival at the exit discharge or public way.

1021.2 (IFC [B] 1021.2) Exits from stories. Two exits, or exit access stairways or ramps providing access to exits, from any story or occupied roof shall be provided where one of the following conditions exists:

1. The occupant load or number of dwelling units exceeds one of the values in Table 1021.2(1) or 1021.2(2). When exit access stairways or ramps provide required access to an exit at an adjacent story, the occupant load of the adjacent story shall be based on that portion of the occupant load of the mezzanine or story having required egress through such adjacent story added to the occupant load story under consideration.
2. The exit access travel distance exceeds that specified in Table 1021.2(1) or 1021.2(2) as determined in accordance with the provisions of Section 1016.1.

3. Helistop landing areas located on buildings or structures shall be provided with two exits, or exit access stairways or ramps providing access to exits.

Exceptions:

1. Rooms, areas and spaces complying with Section 1015.1 with exits that discharge directly to the exterior at the level of exit discharge, are permitted to have one exit.
2. Group R-3 occupancy buildings shall be permitted to have a one exit.
3. Parking garages where vehicles are mechanically parked shall be permitted to have one exit,
4. Air traffic control towers shall be provided with the minimum number of exits specified in Section 412.3.
5. Individual dwelling units in compliance with Section 1021.2.3.
6. Group R-3 and R-4 congregate residences shall be permitted to have one exit.
7. ~~Exits serving specific spaces or areas need not be accessed by the remainder of the story when all of the following are met:~~
   - ~~7.1 The number of exits from the entire story complies with Table 1021.1(1) or 1021.2(2);~~
   - ~~7.2 The access to exits from each individual space in the story complies with Section 1015.1; and~~
   - ~~7.3 All spaces within each portion of a story shall have access to the minimum number of approved independent exits as specified in Table 1021.1(1) or 1021.2(2) based on the occupant load of that portion of the story.~~

Reason: The 2012 Edition of the IBC is significant in that many fundamental Chapter 10 provisions have been clarified by modifying terminology or technical correlation. E10-09/10 and E22-09/10 were two such contributing proposals. Through those proposals, Sections 1004 and 1005 were altered to place means of egress occupant load determination and sizing provisions in functional context. When provisions are placed in proper technical context so as to gain consistency in interpretation and application, additional clarification is often required to complete the thought process and maximize understanding of the intent of the specific requirement.

Proposed revisions are explained in numerical order. Presently, means of egress capacity continuity requirements are located in two sections, Section 1003.6 and 1005.4. Section 1003.6 does not contain a key requirement that the required capacity shall not be reduced until arrival at the public way. The two sections have been consolidated, clarified and located in technical context in Section 1005.4. Code users are not well served by having fundamental code requirements fragmented at two separate locations. Section 1005 is the logical location for this important means of egress sizing provision.

This proposal places cumulative occupant load application requirements in the technical context of various means of egress design requirements such as required capacity and minimum numbers of exits or access to exits. Relocation of the cumulative occupant load provisions from Section 1004.1.1 inadvertently removes the spatial charging language of “rooms, areas or spaces” from Section 1004. Therefore, these terms are replaced in technical context in the next section, Section 1004.1.2, and technical continuity is maintained.

Section 1005.1 now contains provisions for how cumulative occupants loads are to be specifically applied in the determination of means of egress capacity requirements. Additionally, provisions have been clarified be consistent with current IBC means of egress capacity philosophy. For instance, 2012 Section 1004.1.1.2 (proposed Section 1005.1.1.2) implies that 100 percent of the occupant load of an adjacent level is to be added to the occupant load of a space under consideration at another building level. This proposal clarifies that only that portion of the occupant load having <u>required</u> egress through the adjacent level needs to be considered. Additionally, the last sentence of Section 1005.3.1 has been clarified and relocated in context in new Section 1005.1.1.2. It clarifies that cumulative occupant loads are not considered only when exit stairways (interior and exterior exit stairways) are employed in the design of the means of egress system. The current language states that <u>any</u> stairway, to include required exit access stairways, need not consider cumulative occupant loads. Historically, occupant loads from adjacent stories have not been considered when determining the required capacity for only exit components.

As previously discussed, means of egress capacity continuity provisions have been consolidated and located in technical context in Section 1005.4.

Cumulative occupant load provisions specifically applicable to the determination of the number of exits or exit access doorways from an individual room, area or space have been placed in context in Section 1015.1. Presently, the requirement that, “cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1.” is located as an afterthought cross-reference as the last sentence of Section 1015.1. The actual requirement has been articulated and placed in technical context in the section. Additionally, currently there is no requirement to maintain the required number of exits or exit access doorways, once established, until arrival at the exit discharge or public way. This logical requirement will now be legally charged.

Section 1020.1 has also been revised to include a legal requirement that the required number of exits be maintained within a building.

Section 1021.2 has been modified to include guidance as to what portion of the occupant loads of an adjacent story are to be applied in the determination of the number of exits required from a story above or below. Also, Exception 7 to Section 1021.2 has been deleted as there is currently no requirement for specific spaces to have access to all exits on a story.

In summary, this proposal clarifies how cumulative occupant loads are to be applied in the determination of specific means of egress design requirements. The general provisions currently located in Section 1004.1.1 are replaced by more specifically applicable requirements located in context at Sections 1005.1.1, 1015.1 and 1021.2. The provisions have also been clarified to indicate what portions of occupant loads from adjacent spaces are to be considered under the various design conditions. It should be noted that this proposal is consistent with current IBC means of egress design philosophy. Approval of this proposal will provide necessary guidance to designers and enforcement officials in these fundamental means of egress areas and will lead to more consistent interpretation and application of these important provisions. Through improved formatting and language this proposal further clarifies 2012 IBC means of egress provisions and increases functionality and technical continuity in this important area of life safety.

Cost Impact: None

E14-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1004.1.1.1-E-Keith.doc

E15 – 12
1004.1.1.1, 1004.1.1.2, 1014.2 (IFC [B] 1004.1.1.1, 1004.1.1.2, 1014.2)

Proponent: Dennis Richardson, PE; Building Official, City of Salinas, representing Tri-Chapter (Peninsula, East Bay and Monterey Bay Chapters of ICC) (dennisrichardsonpe@yahoo.com)

Revise as follows:

1004.1.1.1 (IFC [B] 1004.1.1.1) Intervening spaces. Where occupants egress from one or more room, area or space through another, the design *occupant load* shall be based on the combination of occupant load from all rooms, and spaces served. The capacity of each exit access path component shall be based on the cumulative *occupant loads* comprised of a portion of the occupant load of all rooms, areas or spaces accumulated to that point along each ~~the~~ path of egress travel.

1004.1.1.2 (IFC [B] 1004.1.1.2) Adjacent levels. The *occupant load* of a *mezzanine* or story with egress through a room, area or space on an adjacent level shall be ~~added to the *occupant load* of that room, area or space.~~ determined as required for intervening spaces in Section 1004.1.1.1.

1014.2 (IFC [B] 1014.2) Egress through intervening spaces. Egress through intervening spaces shall comply with this section.

The minimum number of exits or exit access doors required from all interconnected portions of the exit access shall be provided based on the combined occupant load of all intervening rooms and spaces served as specified in Section 1015.1 and each room, area, or portion of the exit access shall have exits or access to exits as required from spaces. The capacity of each exit access path component at any point shall be based on the cumulative occupant load served as specified in Section1004.1.1.1 and the requirements for egress component sizing in Section 1005.1.

Reason: Egress paths from rooms, areas and spaces for each portion of the exit access in the aggregate must comply with all the requirements for number of exits or exit access doors, arrangement, as well as the sizing and specific requirements of components along each exit access path.

Unfortunately the current language in 1004.1.1.1 implies the design occupant load for components of the exit path is total cumulative occupant load of all rooms areas or spaces along a path without making a distinction regarding the portion of occupant load that must be addressed along each path to ensure the proper sizing of egress components which is different from the overall design occupant load used to determine the total number of exits or exit access doors from the overall system. Also the current language treats intervening rooms differently than exit access to adjacent levels.

Egress through intervening spaces is very similar to egress along exit access stairs and mezzanine stairs making its way to an exit on an adjacent level. In both the intervening room and the exit access through an adjacent level, the exit access path occurring on an exit access stairway may be one of many exit access paths or the only exit access path depending on the number or required egress paths from a specific space. The basic principle does not change and should be treated consistently exit access paths through intervening spaces and for exit access paths to adjacent levels subject to the existing limitations of numbers of exit access stairways given credit from a given story which does not change as part of this proposed code change.

Cost Impact: This change will not increase the cost of construction as it states what is already intended by the code.

E15-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1004.1.1.1-E-RICHARDSON

E16 – 12
1004.1.1 (IFC [B] 1004.1.1)

Proponent: Ray Grill, P.E., Arup, representing self (Ray.Grill@arupgp.com)

Revise as follows:

1004.1.1 (IFC [B] 1004.1.1) Cumulative occupant loads. Where the path of egress travel includes intervening rooms, areas or spaces, cumulative *occupant loads* shall be determined in accordance with this section.

> **Exception:** Vestibules and corridors providing access to exits or exit discharges shall not be considered intervening rooms, areas or spaces.

Reason: The current language of the code is being interpreted to require vestibules or corridors that serve as part of a path of egress to be provided with the number of exits based on the occupant load passing thru the vestibule or corridor to the exit.

For instance if 100 occupants are passing thru a vestibule to the outside, the code is being interpreted to require that the vestibule have another exit and that the doors to both exits swing in the direction of egress travel. This is impractical and does not increase the level of safety.

Here are some illustrations of conditions that have received this interpretation.

Cost Impact: None

E16-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1004.1.1-E-Grill.doc

E17-12
1004.1.1.2, 1005.3.1, 1005.3.2 (IFC [B] 1004.1.1.2, 1005.3.1, 1005.3.2)

Proponent: Charles S. Bajnai, Chesterfield County, VA, ICC Building Code Action Committee

Revise as follows:

1004.1.1.2 (IFC [B] 1004.1.1.2) Adjacent levels. That portion of the occupant load of a mezzanine or story with required egress through a room, area or space on an adjacent story ~~level~~ shall be added to the occupant load of that room, area or space.

1005.3.1 (IFC [B] 1005.3.1) Stairways. The capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairway by a means of egress capacity factor of 0.3 inches (7.62 mm) per occupant. Where interior or exterior exit stairways serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required capacity of the stairways serving that story. Where exit access stairways provide required access to an exit at an adjacent story, the occupant load determined in accordance with Section 1004.1.1.2 shall be used in calculating the required capacity of the means of egress serving that story.

> **Exception:** For other than Group H and I-2 occupancies, the capacity, in inches (mm), of *means of egress stairways* shall be calculated by multiplying the *occupant load* served by such *stairway* by a *means of egress* capacity factor of 0.2 inch (5.1 mm) per occupant in buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an *emergency voice/alarm communication system* in accordance with Section 907.5.2.2.

1005.3.2 (IFC [B] 1005.3.2) Other egress components. The capacity, in inches (mm), of *means of egress* components other than *stairways* shall be calculated by multiplying the *occupant load* served by such component by a *means of egress* capacity factor of 0.2 inch (5.1 mm) per occupant. Where exit access ramps provide required access to an exit at an adjacent story, the occupant load determined in accordance with Section 1004.1.1.2 shall be used in calculating the required capacity of the means of egress serving that story.

> **Exception:** For other than Group H and I-2 occupancies, the capacity, in inches (mm), of *means of egress* components other than *stairways* shall be calculated by multiplying the *occupant load* served by such component by a *means of egress* capacity factor of 0.15 inch (3.8 mm) per occupant in buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an *emergency voice/alarm communication system* in accordance with Section 907.5.2.2.

Reason: This proposal is submitted by the ICC Building Code Action Committee (BCAC) The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 3 open meetings and over 15 workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: http://www.iccsafe.org/cs/BCAC/Pages/default.aspx.

The 2012 Edition of the IBC has formalized the concept of accessing exits from adjacent stories. Accordingly, several means of egress design details need to be clarified so as to be consistent with the intent of Section 1021. Currently, Section 1004.1.1.2 literally requires that (100% of) the occupant load of a mezzanine or story with egress through a room, area or space on an adjacent level shall be added to the occupant load of that room, area or space. That would be appropriate if there were no other exits serving the mezzanine or story. However, if the mezzanine or story also has other independent exits that do not egress through the adjacent story, it is reasonable to assume these other independent exits can and will be used by the occupants of that mezzanine or story. This proposal clarifies that only that portion of the occupant load of the level of origin actually using exit access stairways need be used in determining means of egress requirements for the adjacent story. To be consistent with this philosophy, Section 1005.3.2 has also been modified to state an identical provision for exit access ramps which provide required access to an exit at an adjacent story.

Additionally, Section 1005.3.1 has been modified to clarify that only the occupant load of a story directly accessing an interior exit stairway need be considered in determining the required capacity of such interior exit stairway that serves additional stories. The cascade effect is accounted for in the means of egress capacity factor for stairways in Section 1005.3.1. A cross-reference to

the method for determining the required capacity for areas served by exit access stairways from an adjacent level has also been provided.

Section 1004.6 (Mezzanine levels) of the 2009 IBC reads very similarly to Section 1004.1.1.2 (Adjacent levels) of the 2012 IBC. The 2009 IBC Commentary states, "The egress requirements for mezzanines are handled similar to those addressed in Section 1004.1 with accessory areas versus the requirements for exiting from multiple levels in Section 1004.4. That is, that portion of the mezzanine occupant load that discharges to the floor below is to be added to the occupant load of the space on the floor below. The sizing and number of the egress components must reflect this combined occupant load. This does not apply to the means of egress from a mezzanine that does not require travel through another level (i.e., an exit stairway serving the mezzanine)."

Clarification is achieved by adding the "that portion" language in the commentary to the actual provision. Approval of this proposal is consistent with the means of egress philosophy contained in the 2012 IBC and will result in the more consistent interpretation and application of fundamental means of egress design provisions.

Cost Impact: This code change proposal will not increase the cost of construction.

E17-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1004.1.1.2-E-BAJNAI-BCAC.docx

E18 – 12
Table 1004.1.2 (IFC [B] Table 1004.2)

Proponent: Al Godwin, CBO, CPM, Aon Fire Protection Engineering representing Aon Fire Protection Engineering (al.godwin@aon.com)

Revise as follows:

TABLE 1004.1.2 (IFC [B] TABLE 1004.1.2)
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANCY

FUNCTION OF SPACE	OCCUPANCY LOAD FACTOR
Mercantile	
~~Areas on other floors~~	~~30 gross~~
~~Basement and grade floor areas~~	~~60 gross~~
Primary floors of the retail space[b]	30 gross
Floors and mezzanine other than the primary floors	60 gross
Storage, stock, shipping areas	300 gross

(Portions of table and notes not shown remain unchanged.)

b. The primary floor is the entry floor of the retail space. More than one floor will be considered a primary floor where customer entry from outside the retail space can occur on different levels. Other floors are secondary floors, mezzanines, and basements that customers can only access once inside the retail space.

Reason: It has never been made clear if the grade floor is the 1st floor of the retail space, or only those floors at grade. What about retails spaces that are on the 2nd floor of a strip center or mall? Is it assumed that they will not be as crowded as a retail space on the 1st floor? What if there are two grade floors? Why does a basement level have the same occupant load as the "grade floor." This revision is provided to hopefully clarify the requirement. At least provide better clarification in the commentary.

Cost Impact: This code change proposal will not increase the cost of construction.

E18-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

T1004.1.2-E-Godwin.doc

E19 – 12
1004.2 (IFC [B] 1004.2)

Proponent: Al Godwin, CBO, CPM, Aon Fire Protection Engineering representing Aon Fire Protection Engineering (al.godwin@aon.com)

Revise as follows:

1004.2 (IFC [B] 1004.2) Increased occupant load. The *occupant load* permitted in any building, or portion thereof, is permitted to be increased where approved by the *building official* from that number established for the occupancies in Table 1004.1.2, provided that all other requirements of this ~~the~~ code or any other applicable codes are also met based on such modified number and the *occupant load* does not exceed one occupant per 7 square feet (0.65 m^2) of net occupiable floor space.

In making the decision, the *building official* shall be permitted to consider such issues as:

1. Is this a temporary or permanent increase;
2. The function and operation of the business;
3. Openness of egress flow;
4. Management control of crowd and evacuation issues;
5. The effect of seating or tables on the egress path;
6. Is alcohol present.

After review, the *building official* shall be permitted to require a lesser density.

Where required by the *building official*, an approved aisle, seating or fixed equipment diagram substantiating any increase in *occupant load* shall be submitted. Where required by the *building official*, such diagram shall be posted.

Reason: As written, the 1:7 seems automatic if extra exits and width are provided. Some designers have felt that it is automatic and expressed opposition when other factors were brought into the evaluation. However, there are many issues that should be considered in evaluating the increase. Only a few are listed.

There is a difference in increasing the occupant load for rooms used for code hearings than rooms used as a night club, with low lights and patrons consuming alcohol. To allow an occupant load increase requires a different evaluation.

Also, there are other codes that are affected as well. An occupant load increase may change the alarm specifications, the restroom requirements, the fresh air requirements, etc. All of these factors are part of the evaluation.

Cost Impact: This code proposal will not increase the cost of construction since no extra construction costs are involved.

E19-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1004.2-E-Godwin.doc

E20-12/13

1005.1, 1005.3.1, 1005.3.2, 1028.6, 1028.6.1, 1028.6.2, Table 1028.6.2, 1028.6.2.1, 1028.6.3 (IFC [B] 1005.1, 1005.3.1, 1005.3.2, 1028.6, 1028.6.1, 1028.6.2, Table 1028.6.2, 1028.6.2.1, 1028.6.3)

Proponent: Charles S. Bajnai, Chesterfield County, VA, ICC Building Code Action Committee

Revise as follows:

1005.1(IFC [B] 1005.1) General. All portions of the means of egress system shall be sized in accordance with this section.

> **Exception:** ~~Means of egress~~ Aisles and aisle accessways in rooms or spaces used for assembly purposes complying with Section 1028.

1005.2 (IFC [B] 1005.2) Minimum width based on component. The minimum width, in inches, of any means of egress components shall not be less than that specified for such component, elsewhere in this code.

1005.3 (IFC [B] 1005.3) Required Capacity based on occupant load. The required capacity, in inches, of the means of egress for any room, area, space or story shall not be less than that determined in accordance with the following:

1005.3.1 (IFC [B] 1005.3) Stairways. The capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairway by a means of egress capacity factor of 0.3 inches (7.62 mm) per occupant. Where stairways serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required capacity of the stairways serving that story.

> **Exceptions:**
>
> 1. For other than Group H and I-2 occupancies, the capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairway by a means of egress capacity factor of 0.2 inches (5.1 mm) per occupant in buildings equipped throughout with and automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.
> 2. Facilities with *smoke-protected assembly seating* shall be permitted to use the capacity factors in Table 1028.6.2 indicated for aisles stairs for exit access or exit stairways where the entire path for means of egress from the seating to the exit discharge is provided with a smoke control system complying with Section 909.
> 3. Facilities with outdoor *smoke-protected assembly seating* shall be permitted to the capacity factors in Section 1028.6.3 indicated for aisle stairs for exit access or exit stairways where the entire path for means of egress from the seating to the exit discharge is open to the outdoors.

1005.3.2 (IFC [B] 1005.3.2) Other egress components. The capacity, in inches, of means of egress components other than stairways shall be calculated by multiplying the occupant load served by such component by a means of egress capacity factor of 0.2 inches (5.08 mm) per occupant.

> **Exceptions:**
>
> 1. For other than Group H and I-2 occupancies, the capacity, in inches, of means of egress components other than stairways shall be calculated by multiplying the occupant load served by such component by a means of egress capacity factor of 0.15 inches (3.8 mm) per

occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

2. Facilities with *smoke-protected assembly seating* shall be permitted to use the capacity factors in Table 1028.6.2 indicated for level or ramped aisles for means of egress components other than stairways where the entire path for means of egress from the seating to the exit discharge is provided with a smoke control system complying with Section 909.
3. Facilities with outdoor *smoke-protected assembly seating* shall be permitted to the capacity factors in Section 1028.6.3 indicated for level or ramped aisles for means of egress components other than stairways where the entire path for means of egress from the seating to the exit discharge is open to the outdoors.

1005.4 (IFC [B] 1005.4) Continuity. The capacity of the means of egress required from any story of a building shall not be reduced along the path of egress travel until arrival at the public way.

1028.6 (IFC [B] 1028.6) ~~Width~~ Capacity of ~~means of egress~~ aisle for assembly. The ~~clear width~~ required capacity of aisles ~~and other means of egress~~ shall not be less than that determined in accordance with ~~comply~~ ~~with~~ Section 1028.6.1 where smoke-protected seating is not provided and with Section 1028.6.2 or 1028.6.3 where smoke-protected seating is provided. ~~The clear width shall be measured to walls, edges of seating and tread edges except for permitted projections.~~

1028.6.1 (IFC [B] 1028.6.1) Without smoke protection. The ~~clear width~~ required capacity in inches (mm) of the ~~means of egress~~ aisles for assembly seating without smoke protection shall ~~provide sufficient capacity~~ not be less than the occupant load served by the egress element in accordance with all of the following, as applicable:

1. At least 0.3 inch (7.6 mm) of aisle width for each occupant served shall be provided on aisle stairs having riser heights 7 inches (178 mm) or less and tread depths 11 inches (279 mm) or greater, measured horizontally between tread nosings.
2. At least 0.005 inch (0.127 mm) of additional aisle ~~stair~~ width for each occupant shall be provided for each aisle stair with 0.10 inch (2.5mm)of riser height above 7 inches (178 mm).
3. Where egress requires aisle stair descent, at least 0.075 inch (1.9 mm) of additional aisle width for each occupant shall be provided on those portions of aisle stair width having no handrail within a horizontal distance of 30 inches (762 mm).

1028.6.2 (IFC [B] 1028.6.2) Smoke-protected seating. The ~~clear width~~ required capacity in inches (mm) of the ~~means of egress~~ aisle for smoke-protected assembly seating shall not be less than the occupant load served by the egress element multiplied by the appropriate factor in Table 1028.6.2. The total number of seats specified shall be those within the space exposed to the same smoke-protected environment. Interpolation is permitted between the specific values shown. A life safety evaluation, complying with NFPA 101, shall be done for a facility utilizing the reduced width requirements of Table 1028.6.2 for smoke-protected assembly seating.

Exception: For an outdoor smoke-protected assembly seating with an occupant load not greater than 18,000, the ~~clear width~~ required capacity in inches (mm) shall be determined using the factors in Section 1028.6.3.

TABLE 1028.6.2 (IFC [B] TABLE 1028.6.2)
~~WIDTH OF~~ CAPACITY FOR AISLES FOR SMOKE-PROTECTED ASSEMBLY

TOTAL NUMBER OF SEATS IN THE SMOKEPROTECTED ASSEMBLY SEATING	INCHES OF CLEAR WIDTH PER SEAT SERVED			
	~~Stairs and~~ Aisle ~~steps~~ stairs with handrails within 30 inches	~~Stairs and~~ Aisle ~~steps~~ stairs without handrails within 30 inches	~~Passageways, doorways and ramps~~ Flat aisles or ramped aisle not steeper than 1 in 10 in slope	~~Ramps~~ Ramped aisles steeper than 1 in 10 in slope
Equal to or less than 5,000	0.200	0.250	0.150	0.165
10,000	0.130	0.163	0.100	0.110
15,000	0.096	0.120	0.070	0.077
20,000	0.076	0.095	0.056	0.062
Equal to or greater than 25,000	0.060	0.075	0.044	0.048

For SI: 1 inch = 25.4 mm.

1028.6.2.1 (IFC [B] 1028.6.2.1) Smoke control. ~~Means of egress~~ Aisles and aisle accessways serving a *smoke-protected assembly seating* area shall be provided with a smoke control system complying with Section 909 or natural ventilation designed to maintain the smoke level at least 6 feet (1829 mm) above the floor of the means of egress.

1028.6.2.2 (IFC [B] 1028.6.2.2) Roof height. A smoke-protected assembly seating area with a roof shall have the lowest portion of the roof deck not less than 15 feet (4572 mm) above the highest aisle or aisle accessway.

> **Exception:** A roof canopy in an outdoor stadium shall be permitted to be less than 15 feet (4572 mm) above the highest aisle or aisle accessway provided that there are no objects less than 80 inches (2032 mm) above the highest aisle or aisle accessway.

1028.6.2.3 (IFC [B] 1028.6.2.3) Automatic sprinklers. Enclosed areas with walls and ceilings in buildings or structures containing smoke-protected assembly seating shall be protected with an approved automatic sprinkler system in accordance with Section 903.3.1.1.

> **Exceptions:**
>
> 1. The floor area used for contests, performances or entertainment provided the roof construction is more than 50 feet (15 240 mm) above the floor level and the use is restricted to low fire hazard uses.
> 2. Press boxes and storage facilities less than 1,000 square feet (93 m2) in area.
> 3. Outdoor seating facilities where seating and the means of egress in the seating area are essentially open to the outside.

1028.6.3 (IFC [B] 1028.6.3) ~~Width of means of egress for~~ outdoor smoke-protected assembly seating. The ~~clear width~~ required capacity in inches (mm) of aisles ~~and other means of egress~~ shall be not less than the total occupant load served by the egress element multiplied by 0.08 (2.0 mm) where egress is by ~~aisles and~~ aisle stairs and multiplied by 0.06 (1.52 mm) where egress is by level aisles and ~~ramps~~ ramped aisles, ~~corridors, tunnels or vomitories~~.

> **Exception:** The ~~clear width~~ required capacity in inches (mm) of aisles ~~and other means of egress~~ shall be permitted to comply with Section 1028.6.2 for the number of seats in the outdoor smoke-protected assembly seating where Section 1028.6.2 permits less width.

Reason: This proposal is submitted by the ICC Building Code Action Committee (BCAC) The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 3 open meetings and over 15 workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: http://www.iccsafe.org/cs/BCAC/Pages/default.aspx.

The question is a consistent application of the numbers used to calculate the capacity in inches for the required width for means of egress within and from assembly spaces. Currently the language for smoke protected seating (Section 1028.6.2 and 1028.6.3) is applicable for the capacity units for the entire means of egress; however, for non-smoke protected seating (Section 1028.6.1) the provisions appear to address only aisles within the seating area. When the capacity numbers in 1005.3 should be used is unclear. The purpose of this proposal is locate the numbers to determine capacity all in assembly facilities in Section 1005.3 for means of egress outside the seating bowl, and to have Section 1028 deal with aisles (level, stepped and ramped) within the seating areas. This will also reinforce that in order to take advantage of the lower capacity unit numbers, not only the seating area, but the means of egress route out of the building must be smoke-protected or open to the outdoors so there is limited accumulation of smoke. This would be consistent with the definition of smoke-protected seating:

SMOKE-PROTECTED ASSEMBLY SEATING. Seating served by *means of egress* that is not subject to smoke accumulation within or under a structure.

The intent is to continue to allow for facilities that provide smoke-protection for the seating bowl and the means of egress to continue to use the lower capacity numbers for determining required egress width; without adversely affecting assembly spaces that do not have smoke-protection.

Problems with the current text is that with the mix of requirements in 1028 for aisles and general means of egress for smoke protected seating, it has been interpreted that the higher capacity numbers should be used for the entire means of egress for non-smoke protected seating. A request for a formal code interpretation on this issue ended up in a deadlock.

For example:

Given a church with a balcony. The aisle stairs have a capacity unit of 0.3 (1028.6.1). Can the stairways from the balcony use the capacity unit of 0.2 (1005.3.1 Exception)? The difference could increase the minimum stairway width for stairways starting with balcony seating of 292 instead of 440.

44”/0.3 = 146 x 2 stairs = 292 occupants
44”/0.2 = 220 x 2 stairs = 440 occupants

Another example:

Consider if an assembly space exits into a multi-use building, such as a lecture hall in a college classroom building. The occupants of the lecture hall use the building stairways to egress the floor. Should the capacity numbers for the stairways be 0.2 for everyone; 0.3 for occupants form the lecture hall but 0.2 for everyone else; or 0.3 for everyone? If the last approach is chosen, one lecture hall in a university classroom/office building could have a significant impact on the stairway width for the entire building.

BCAC has code changes in dealing with aisles in 1005, 1009, 1017 and 1028 as well as a transition between aisle stairs and stairways. The intent is for all four proposals to correlate; however this change can stand by itself.

Cost Impact: This code change proposal will not increase the cost of construction.

E20-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1005.1-E-Bajnai-BCAC.docx

E21 – 12
1005.5 (IFC [B] 1005.5)

Proponent: Gregory R. Keith, Professional heuristic Development, representing The Boeing Company (grkeith@mac.com)

Revise as follows:

1005.5. (IFC [B] 1005.5) Distribution of egress capacity. The required capacity as determined in Section 1005.3 shall be distributed approximately equally among the required exits or exit access doorways. Where more than one exit, or access to more than one exit, is required, the means of egress shall be configured such that the loss of any one exit, or access to one exit, shall not reduce the available capacity to less than 50 percent of the required capacity.

Reason: Although Section 1005.3 dictates how required capacity is determined, there is no overall requirement for the distribution of egress capacity. The limitation of not reducing the available capacity to less than 50 percent of the required capacity generally ensures an approximately equal distribution of required capacity where two exits or exit access doorways are required. Where three or four exits are required from a space or story, capacity distribution can become lopsided. For example, a space with an occupant load of 1001 requires 200 inches of total exit door/exit access doorway capacity. Presently, one exit/exit access doorway could provide for 100 inches of capacity, while the remaining three required exits/exit access doorway could each be served by 3'-0" doors. Ordinarily, 250 occupants are served by 50 inches of egress capacity. Obviously, no one can predict where a fire will originate within a given space. Should one exit/exit access become blocked, the remaining components should be sized to reasonably accommodate the total occupant load of the space. Requiring the approximately equal distribution of required capacity will allow for flexibility in design while ensuring the reasonable apportionment of necessary egress capacity. Having a general distribution provision will assist in avoiding occupant congregation and competition for available egress capacity in an emergency situation from larger spaces.

Cost Impact: None

E21-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1005.5-E-Keith-Richardson.doc

E22 – 12
1006.1 (IFC [B] 1006.1)

Proponent: Walter Vernon, representing Mazzetti Nash Lipsey Burch (walterv@mazzetti.com)

Revise as follows:

1006.1 (IFC [B] 1006.1) Illumination required. The means of egress, including the exit discharge, shall be automatically controlled, or illuminated at all times the building space served by the means of egress is occupied. Where automatic controls are provided, the automatic control system shall fail in the on position and loss of power within the space shall energize the egress lighting.

Exceptions:

1. Occupancies in Group U.
2. Aisle accessways in Group A.
3. Dwelling units and sleeping units in Groups R-1, R-2 and R-3.
4. Sleeping units of Group I occupancies.

Reason: There are two reasons for this proposed change.
1. To reduce the energy used, illuminating unoccupied areas within an occupied space
2. Ensure the lamps of the egress fixtures operate for the same duration as the non-egress fixtures, so eliminating the need to replace lamps in the same fixture or area at different times

Cost Impact: The code change proposal will not increase the cost of construction.

E22-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1006.1-E-Vernon.doc

E23 – 12
1006.1 (IFC [B] 1006.1)

Proponents: Jack Bailey, One Lux Studio, representing The International Association of Lighting Designers (jbailey@oneluxstudio.com)

Revise as follows:

1006.1 (IFC [B] 1006.1) Illumination required. The *means of egress*, including the *exit discharge*, shall be illuminated by either daylight or artificial light at all times the building space served by the *means of egress* is occupied. Lighting controls in the *means of egress* shall be configured so that the failure of any single lighting control device cannot leave any room, or any landing in a stairway, in complete darkness.

Exceptions:

1. Occupancies in Group U.
2. *Aisle accessways* in Group A.
3. *Dwelling units* and *sleeping units* in Groups R-1, R-2 and R-3.
4. *Sleeping units* of Group I occupancies.

Reason: Many designers and building code officials do not know if the code allows interior lighting to be turned off when sufficient daylight is present in the means of egress to allow for a safe and orderly evacuation of the building. However, most assume that lighting for the exterior means of egress can be turned off when sufficient daylight is present, and in fact exterior lighting is usually turned off during the day.

Because of this confusion it is quite common to see emergency lights burning continuously in daylighted interior spaces where adjacent non-emergency lights have been shut off by automatic controls to conserve energy.

There is no reason why the use of automatic controls should make it less likely that sufficient illumination is present for emergency egress, as long as control systems are designed to eliminate any single point of failure. The proposed language, "so that the failure of any single lighting control device cannot leave any room, or any landing in a stairway, in complete darkness" is similar to the language in NFPA 70 (700.16): "Emergency lighting systems shall be designed and installed so that the failure of any individual lighting element, such as the burning out of a lamp, cannot leave in total darkness any space that requires emergency illumination."

As currently written, the code requires the lighting system to perform as described, but does not detail how this should occur. The use of automatic controls will not change this paradigm: building code officials and fire marshals will still inspect emergency lighting systems in buildings, and if these systems do not perform as required for **any** reason (power system or battery failure, burned out light bulb, bad ballast, improper wiring, or failed daylight sensor) they will require that the defect be fixed. And it is easy to verify that daylight sensor controls are functioning properly during daytime inspections: cover the photosensor, and see if the lights turn on.

Daylight sensor controls will eventually fail and need to be replaced, but their failure rate is about the same as the failure rate for ballasts, lower than the failure rate of battery packs, and much lower than the failure rate for lamps. In fact, by keeping lights off much of the time during the day the required maintenance for lamps and ballasts will be dramatically reduced, making it easier to keep the overall means of egress lighting system in working order.

Cost Impact: The code change proposal will not increase the cost of construction.

E23-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1006.1 #2-E-Bailey.doc

E24 – 12
1006.1, 1024.5 (IFC [B] 1006.1, 1024.5)

Proponents: Jack Bailey, One Lux Studio, representing The International Association of Lighting Designers (jbailey@oneluxstudio.com)

Revise as follows:

1006.1 (IFC [B] 1006.1) Illumination required. The *means of egress*, including the *exit discharge*, shall be illuminated at all times the building space served by the *means of egress* is occupied.

Exceptions:

1. Occupancies in Group U.
2. *Aisle accessways* in Group A.
3. *Dwelling units* and *sleeping units* in Groups R-1, R-2 and R-3.
4. *Sleeping units* of Group I occupancies.
5. Where occupant sensor controls are provided in the means of egress which automatically turn lights on when any occupant movement is sensed in the area served by those lights, and which keep those lights on for at least 15 minutes after the occupant motion ceases.

1024.5 (IFC [B] 1024.5) Illumination. Where *photoluminescent* exit path markings are installed, they shall be provided with the minimum *means of egress* illumination required by Section 1006 for at least 60 minutes prior to periods when the building is occupied, and continuously during building occupancy.

Reason: A lot of energy is wasted lighting unoccupied means of egress.

In practice, the code is usually interpreted to mean that interior lights providing illumination in the means of egress cannot ever be turned off. We believe that the code should specifically allow the use of occupant sensors to control these lights.

There is precedent for this in NFPA 101 (2012), Section 7.8.1.2.2 which specifically allows the use of occupant sensor controls, but which provides a list of requirements for those sensors which no products currently on the market comply with.

There is no reason why the use of occupant sensor controls should make it less likely that sufficient illumination is present for evacuation of the building during emergencies, as long as control systems are designed to eliminate any single point of failure. The proposed language, "so that the failure of any single lighting control device cannot leave any room, or any landing in a stairway, in complete darkness" is similar to the language in NFPA 70 (700.16): "Emergency lighting systems shall be designed and installed so that the failure of any individual lighting element, such as the burning out of a lamp, cannot leave in total darkness any space that requires emergency illumination."

As currently written, the code requires the lighting system to perform as described, but does not detail how this should occur. The use of occupant sensor controls will not change this paradigm: building code officials and fire marshals will still inspect emergency lighting systems in buildings, and if these systems do not perform as required for **any** reason (power system or battery failure, burned out light bulb, bad ballast, improper wiring, or failed occupant sensor) they will require that the defect be fixed. It is easy to verify that occupant sensor controls are functioning properly during inspections: if you are in the space and the lights are off, then the occupant sensor is not working.

Occupant sensor controls will eventually fail and need to be replaced, but their failure rate should be about the same as the failure rate for ballasts, lower than the failure rate of battery packs, and much lower than the failure rate of lamps. In fact, by keeping lights off much of the time the maintenance required for lamps and ballasts will be dramatically reduced, making it easier to keep the overall means of egress lighting system in working order.

The revisions to Section 1024.5 are necessary so that occupant sensor controls **are not** used to control means of egress illumination that is used to charge photoluminescent exit path markings.

Illumination sources for photoluminescent, internally illuminated, and externally illuminated exit signs are already required to operate continuously (Sections 1011.5 and 1011.6), so this proposal will have no impact on exit signs. And likewise there will be no impact on required directional path markings in Special Amusement Buildings (Section 411.7) since these have their own separate lighting requirements.

Cost Impact: The code change proposal will not increase the cost of construction.

E24-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1006.1 #1-E-Bailey.doc

E25-12
1006.1.1 (New) [IFC [B] 1006.1.1(New)]

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

Add new text as follows:

1006.1.1 (IFC [B] 1006.1.1) Occupancy sensors. Occupancy sensors shall be permitted to activate the required illumination for the means of egress provided they meet all of the following conditions:

1. The occupancy sensors operate as fail safe devices when the occupancy sensor fails;
2. Where the occupancy sensor is activated by an occupant the area served is illuminated for a minimum duration of 15 minutes;
3. The occupancy sensor operates as a fail safe device in the event of a power supply failure to the emergency lighting system required by Section 1006.3.
4. The means of egress is not required to have illumination to charge luminous egress path markings in accordance with Section 1024.5

Reason: This change permits the use of occupancy sensors which has been allowed in some jurisdictions. It also helps reduce energy as mandated by DOE. There are several proposals from the Adhoc Health Care Committee dealing with Section 1006. The proposals can be accepted individually, however, the proposals can work together.

This proposal is submitted by the ICC Ad Hoc Committee on Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx .

Cost Impact: None

E25-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1006.1-E-Williams-Adhoc.docx

E26 – 12
1006.2 (IFC [B] 1006.2)

Proponent: Randall R. Dahmen, P.E. Wisconsin licensed Commercial Building Inspector, representing self

Revise as follows:

1006.2 (IFC [B] 1006.2) Illumination level. The *means of egress* illumination level shall not be less than 1 footcandle (11 lux) at the walking surface. The illumination level at an elevator landing shall not be less than 10 footcancles (100 lux) measured at the elevator sill.

> **Exception:** For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances to not less than 0.2 footcandle (2.15 lux), provided that the required illumination is automatically restored upon activation of a premises' fire alarm system where such system is provided.

Reason: IBC 3001.2 adopts ASME A17.1 for the design construction, installation, alteration, repair and maintenance of elevators and conveying systems and their components. ASME A17.a states, "**ASME A17.1, 2.11.10.2 Illumination at Landing Sills.** The building corridors shall be so lighted that the illumination at the landing sills, when an elevator is in service, shall be not less than 100 lx (10 fc)". At present, the IBC does not address this minimum illumination requirement using normal power.

Cost Impact: The code change proposal will not increase the cost of construction.

E26-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1006.2-E-DAHMEN.doc

E27-12
1006.2, 1024.5 (IFC [B] 1006.2, 1024.5)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

Revise as follows:

1006.2 (IFC [B] 1006.2) Illumination level. The *means of egress* illumination level shall not be less than 1 foot-candle (11 lux) at the walking surface. The *means of egress* illumination level shall not be less than 10 foot-candle (110 lux) at the walking surface where luminous egress path markings are required by Section 1024.1.

> **Exception:** For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances to not less than 0.2 foot-candle (2.15 lux), provided that the required illumination is automatically restored upon activation of a premises' fire alarm system where such system is provided.

1024.5 (IFC [B] 1024.5) Illumination. Where *photoluminescent* exit path markings are installed they shall be provided with the minimum *means of egress* illumination required by Section ~~1006~~ 1006.2 for at least 60 minutes prior to periods when the building is occupied.

Reason: The change to Section 1006.2 is the light level needed to charge approved luminous markings. The change to 1024.5 is coordination with lighting levels required in 1006.2 and more specific pointer for this unique area.

This proposal is submitted by the ICC Ad Hoc Committee on Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx .

Cost Impact: The code change proposal should not increase the cost of construction because compliance with the standard is already required by facility licensure requirements.

E27-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1006.2-E3-Williams-Adhoc.docx

E28 – 12
1006.2, 1024.5 (IFC [B] 1006.2, 1024.5)

Proponent: Glenn Heinmiller, Lam Partners Architectural Lighting Design representing self (glenn@lampartners.com)

Revise as follows:

1006.2 (IFC [B] 1006.2) Illumination level. The *means of egress* illumination level shall not be less than ~~1 footcandle (11 lux) at the walking surface~~ an average of 1 footcandle (11 lux) and not less than of 0.2 footcandle (2 lux) at any point. The illumination level shall be measured along the path of egress at floor level. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded.

> **Exception:** For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances to not less than 0.2 footcandle (2.15 lux), provided that the required illumination is automatically restored upon activation of a premises' fire alarm system where such system is provided.

1024.5 (IFC [B] 1024.5) Illumination. Where *photoluminescent* exit path markings are installed, they shall be provided with ~~the minimum *means of egress* illumination required by Section 1006~~ not less than 1 footcandle (11 lux) of illumination for at least 60 minutes prior to periods when the building is occupied, and continuously during building occupancy.

Reason: The code should specify the minimum amount of illumination required for people to safely egress from buildings during an emergency. Requiring more light than is necessary reduces the energy efficiency of buildings, and is in direct conflict with the energy saving goals of the IECC and IGCC.

1. European Norm EN 1838 (Emergency Lighting) requires a **minimum** of 1 lux (0.1 footcandle) for safety lighting in escape routes, and a **minimum** of 0.5 lux (0.05 footcandles) of anti-panic lighting. The maximum-to-minimum uniformity ratio must be less than 40 to 1.
2. The Ninth Edition of the IESNA Handbook recommends a **minimum** of 0.1 footcandle in the means of egress, with a maximum-to-minimum uniformity ratio less than 40 to 1.
3. Section 1006.3.1 requires that an **average** of 1 footcandle and a **minimum** of 0.1 footcandle be provided at the beginning of an emergency involving the loss of normal power. The maximum-to-minimum uniformity ratio must be less than 40 to 1.
4. NFPA 101 (7.9.2.1) also requires that an **average** of 1 footcandle and a **minimum** of 0.1 footcandle be provided at the beginning of an emergency involving the loss of normal power. The maximum-to-minimum uniformity ratio must be less than 40 to 1.

This proposal would reduce the amount of illumination required in means of egress from a minimum of 1.0 footcandle to a minimum of 0.2 footcandle, which should still be twice as much light as we need, based on the references cited above.

Cost Impact: The code change proposal will not increase the cost of construction.

E28-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1006.2 #1-E-Heinmiller.doc

E29 – 12
1006.2 (IFC [B] 1006.2)

Proponent: Gene Boecker, AIA, Code Consultants, Inc, representing self (geneb@codeconsultants.com)

Revise as follows:

1006.2 (IFC [B] 1006.2) Illumination level. The means of egress illumination level shall not be less than 1 footcandle (11 lux) at the walking surface.

> **Exception:** For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances ~~to not less than 0.2 footcandle (2.15 lux),~~ by one of the following methods provided that the required illumination is automatically restored upon activation of a premises' fire alarm system.
>
> 1. Externally illuminated walking surfaces shall be permitted to be illuminated to not less than 0.2 footcandle (2.15 lux).
> 2. Steps, landings and the sides of ramps shall be permitted to be marked in accordance with Sections 1024.2.1, 1024.2.2 and 1024.2.4 by systems listed in accordance with UL 1994.

Reason: The exception is divided into two parts. The first is a relocation of the existing text of the exception. The second part adds the allowance for use of the self-luminous marking system already in the code in Section 1024. Because the illumination levels within an auditorium may not be brought up to sufficiently high levels between performances to charge the photoluminescent markings, only internally illuminated systems are addressed. The light levels produced would be the same as those required for the emergency egress identification provided by the markings in Section 1024. Handrail marking is not included in this proposal because it was not a part of the external illumination concept previously and because it would be distracting to individuals seated at essentially the same eye level as the handrails.

The UL standard is already included in the code. It recognizes internal illumination as one means of achieving the illumination levels desired and provides a method for assuring reliability.

Cost Impact: None

E29-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1006.2-E-Boecker.doc

E30 – 12
1006.2 (IFC [B] 1006.2)

Proponent: Glenn Heinmiller, Lam Partners Architectural Lighting Design representing self (glenn@lampartners.com)

Revise as follows:

1006.2 (IFC [B] 1006.2) Illumination level. The *means of egress* illumination level shall not be less than 1 footcandle (11 lux) at the walking surface.

~~Exception~~ Exceptions:

1. For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances to not less than 0.2 footcandle (2.15 lux), provided that the required illumination is automatically restored upon activation of a premises' fire alarm system where such system is provided.
2. For exterior *means of egress* the illumination at the walking surface is permitted to be reduced to not less than 0.2 footcandle (2.15 lux), provided that the required illumination is automatically restored upon activation of a premises' fire alarm system.

Reason: The IBC should specify the minimum amount of illumination required for people to safely egress from buildings during an emergency. Requiring more light than is necessary reduces the energy efficiency of buildings, and is in direct conflict with the energy saving goals of the IECC and IGCC.

In addition to the energy used by these lighting systems, excessive exterior lighting also contributes to light trespass, which the IGCC seeks to limit.

This proposal would allow buildings with fire alarm systems to operate **exterior** means of egress lighting at a lower level of 0.2 footcandle minimum, provided that light levels automatically increase to 1.0 footcandle minimum when triggered by the fire alarm system.

Many exterior lighting applications require far less than 1.0 footcandle minimum illumination, including most pedestrian walkways. Building owners who wish to invest in a control system which allows them to operate their exterior lighting at lower levels when there is no emergency that requires evacuation of the building should be allowed to do so.

Cost Impact: The code change proposal will not increase the cost of construction.

E30-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1006.2 #2-E-Heinmiller.doc

E31 – 12
1006.2 (IFC [B] 1006.2)

Proponents: Jack Bailey, One Lux Studio, representing The International Association of Lighting Designers (jbailey@oneluxstudio.com)

Revise as follows:

1006.2 (IFC [B] 1006.2) Illumination level. The *means of egress* illumination level shall not be less than 1 footcandle (11 lux) at the walking surface.

Exceptions:

1. For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances to not less than 0.2 footcandle (2.15 lux), provided that the required illumination is automatically restored upon activation of a premises' fire alarm system where such system is provided.
2. <u>For exterior *means of egress* illumination shall average not less than 1 footcandle (11 lux) and not less than of 0.1 footcandle (1 lux) at any point. The illumination level shall be measured along the path of egress at floor level. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded.</u>

Reason: Exterior light levels are typically much lower than interior light levels, and this should be recognized by the code.

The code requires that all exit discharges be illuminated to the public way, or to a safe dispersal area on the building site, with illumination levels as specified in Section 1006.2. For larger buildings or campuses distant from a public way, this can mean hundreds of feet of exterior pathways that are required to be illuminated at all times the building is occupied.

It is good that emergency illumination is required for exterior means of egress, but the illumination requirement must be appropriate.

The proposed light levels are copied from 1006.3.1, and we would suggest that if this is sufficient light for a safe and orderly evacuation of the building when normal power is lost, it should also be sufficient when normal power is available.

Excessive exterior lighting is problematic for several reasons:

1. It wastes energy.
2. It encourages overlighting for other areas of the site (because you may not want an infrequently used egress path to be the brightest area on site), which wastes even more energy.
3. It contributes to light pollution, which has been shown to harm both human and animal health.

Cost Impact: The code change proposal will not increase the cost of construction.

E31-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1006.2 #1-E-Bailey.doc

E32 – 12
1006.2.1, 1006.3.1 (IFC [B] 1006.2.1, 1006.3.1)

Proponents: Jack Bailey, One Lux Studio, representing The International Association of Lighting Designers (jbailey@oneluxstudio.com)

Revise as follows:

1006.2 (IFC [B] 1006.2) Illumination level. The *means of egress* illumination level shall ~~not be less than 1 footcandle (11 lux) at the walking surface~~ average not less than of 1 footcandle (11 lux) and not less than 0.1 footcandle (1 lux) at any point. The illumination level shall be measured along the path of egress at floor level. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded.

> **Exception:** For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances to not less than 0.1 footcandle (1 lux)~~0.2 footcandle (2.15 lux)~~, provided that the required illumination is automatically restored upon activation of a premises' fire alarm system where such system is provided.

1006.3.1 (IFC [B] 1006.3.1) Illumination level under emergency power. Emergency lighting facilities shall be arranged to provide initial illumination in accordance with Section 1006.2.~~that is at least an average of 1 footcandle (11 lux) and a minimum at any point of 0.1 footcandle (1 lux) measured along the path of egress at floor level~~. Illumination levels shall be permitted to decline to 0.6 footcandle (6 lux) average and a minimum at any point of 0.06 footcandle (0.6 lux) at the end of the emergency lighting time duration. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded.

Reason: IBC 2012 has two different standards for light levels in the means of egress, which is confusing to many people. Under normal power, a **minimum** of 1 footcandle of illumination is required. Under emergency power, an **average** of 1 footcandle of illumination is required, with a **minimum** of 0.1 footcandle. This proposal would simplify these requirements to require one light level at all times. Section 1006.3.1 is still required, to allow illumination levels from battery powered lighting equipment to decline as the batteries run down.

We do not believe that this proposal will have any impact on photoluminescent or externally illuminated exit signs (Sections 1011.5 and 1011.6.2), or directional path markings in Special Amusement Buildings (Section 411.7) since these have their own separate lighting requirements.

We believe that this change is necessary for several reasons:

First, the current code allows light levels to decline by up to 90% at the start of an emergency that involves loss of normal power, and this is a time when people are likely to panic. Keeping light levels consistent at the beginning of an emergency should enhance safety.

Second, we believe that the current IBC requirement for an average of 1 footcandle and a minimum of 0.1 footcandle under emergency power is sufficient for a safe and orderly evacuation of the building, so why should more light be required under normal operating conditions?

Third, 1 footcandle minimum illumination is excessive for many types of uses. Most bars, night clubs, and fine dining restaurants do not provide 1 footcandle minimum illumination because it is inappropriately high. Most movie theaters do not provide a minimum of 0.2 footcandle in aisles during projections for the same reason. And most exterior lighting applications require less than a minimum of 1.0 footcandle. We would rather see a reasonable requirement consistently complied with than an unreasonable requirement regularly ignored.

And finally, higher light levels have an environmental impact. Excessive lighting wastes energy. And when emergency light fixtures are provided with integral battery packs (which is the most common solution in many jurisdictions), those battery packs always contain either lead or cadmium, which are toxic, and they often end up in municipal landfills because of improper disposal.

It is vitally important that buildings are provided with sufficient illumination to allow a safe and orderly evacuation during emergencies. But excessive lighting does not improve safety, and does harm the environment.

Cost Impact: The code change proposal will not increase the cost of construction.

E32-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1006.2 #2-E-Bailey.doc

E33-12
1006.2.1 (New), 1006.3.1 [IFC [B] 1006.2.1(New), 1006.3.1]

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

Revise as follows:

1006.2.1 (IFC [B] 1006.2.1) Exit discharge. In Group I-2 occupancies, at the exit discharge, exterior landings as required by Section 1008.1.6 for *exit discharge* doorways in buildings required to have two or more *exits*, failure of any single lighting unit shall not reduce the illumination level to less than 1 foot-candles (11 lux).

1006.3.1 (IFC [B] 1006.3.1) Illumination level under emergency power. Emergency lighting facilities shall be arranged to provide initial illumination that is at least an average of 1 foot-candle (11 lux) and a minimum at any point of 0.1 foot-candle (1 lux) measured along the path of egress at floor level. Illumination levels shall be permitted to decline to 0.6 foot-candle (6 lux) average and a minimum at any point of 0.06 foot-candle (0.6 lux) at the end of the emergency lighting time duration. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded. In Group I-2 occupancies, failure of any single lighting unit shall not reduce the illumination level to less than 0.2 foot-candles (2.2 lux).

Reason: The intent of new Section 1006.2.1 is to assure that the failure of a single lighting unit will not comprise the minimum lighting levels needed to safely egress during exit discharge.

The revision in Section 1006.3.1 is to assure performance of the lighting system during an emergency. The requirement creates a level of redundancy needed to assure lighting levels.

The limitation to Group I-2 is due to the scope of the Adhoc Health committee. There are no reasons why this would not be a good change for a majority of occupancies.

This proposal is submitted by the ICC Ad Hoc Committee on Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx .

Cost Impact: None

E33-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1006.2.1-E-Williams-Adhoc.docx

E34 – 12
1006.3 (IFC [B] 1006.3)

Proponent: Gene Boecker, Code Consultants, Inc., representing self (geneb@codeconsultants.com); Maureen Traxler, City of Seattle Department of Planning and Development, representing City of Seattle Department of Planning and Development (maureen.traxler@seattle.gov)

Revise as follows:

1006.3 (IFC [B] 1006.3) Emergency power for illumination. The power supply for means of egress illumination shall normally be provided by the premises' electrical supply.

1006.3.1 (IFC [B] 1006.3.1) Rooms and spaces. In the event of power supply failure, in rooms and spaces that require two or more means of egress an emergency electrical system shall automatically illuminate all of the following areas:

1. Aisles ~~and unenclosed egress stairways in rooms and spaces that require two or more means of egress~~.
2. Corridors~~, interior exit stairways and ramps and exit passageways in buildings required to have two or more exits~~.
3. Exit access stairways and ramps

1006.3.2 (IFC [B] 1006.3.2) Buildings. In the event of power supply failure, in buildings that require two or more means of egress, an emergency electrical system shall automatically illuminate all of the following areas:

1. Interior exit access stairways and ramps
2. Interior and exterior exit stairways and ramps
3. Exit passageways
~~3. Exterior egress components at other than their levels of exit discharge until exit discharge is accomplished for buildings required to have two or more exits.~~
4. ~~Interior exit discharge elements~~ Vestibules and areas on the level of discharge used for exit discharge in accordance with~~, as permitted in~~ Section 1027.1, ~~in buildings required to have two or more exits~~.
5. Exterior landings as required by Section 1008.1.6 for exit ~~discharge~~ doorways that lead directly to the exit discharge ~~in buildings required to have two or more exits~~.

1006.3.3 (IFC [B] 1006.3.3) Duration. The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Section 2702.

~~1006.3.1~~ 1006.3.4 (IFC [B] ~~1006.3.1~~ 1006.3.4) Illumination level under emergency power. *(no change)*

Reason: This proposal corrects a small glitch in the 2012 code, and is otherwise editorial. The glitch is that a space for which two means of egress are required might not have an aisle or corridors, for example a gymnasium or horse practice arena. Therefore, Section 1006.3 would not require emergency lighting. The provision that requires emergency lighting when two or more exits are required is moved out of the list so that all such spaces will have emergency lighting. In addition, the proposal updates the terminology used for stairways and ramps.

Cost Impact: None

E34-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1006.3.1(new)-E-Boecker-Traxler.doc

E35 – 12
1006.3 (IFC [B] 1006.3)

Proponent: Wesley Walters (hww@clarkcountynv.gov)

Revise as follows:

1006.3 (IFC [B] 1006.3) Illumination emergency power. The power supply for *means of egress* illumination shall normally be provided by the premises' electrical supply.

In the event of power supply failure, an emergency electrical system shall automatically illuminate all of the following areas:

1. *Aisles* and unenclosed egress *stairways* in rooms and spaces that require two or more *means of egress*.
2. *Corridors*, *exit enclosures* and *exit passageways* in buildings required to have two or more *exits*.
3. Exterior egress components at other than their *levels of exit discharge* until *exit discharge* is accomplished for buildings required to have two or more *exits*.
4. Interior *exit discharge* elements, as permitted in Section 1027.1, in buildings required to have two or more *exits*.
5. Exterior landings as required by Section 1008.1.6 for *exit discharge* doorways in buildings required to have two or more *exits*.
6. Electrical equipment rooms, fire command centers, fire pump rooms and generator rooms.
7. Public restrooms with an area greater than 300 square feet (27.87 m^2).

Reason: The new exception 6 - In the event of an emergency and the lighting is lost you need to track down the problem and maintain emergency equipment. The expansion of areas to include the emergency equipment provides a higher level of safety for those trying to resolve problems with the system failure.

The new exception 7 - large bathrooms are designed without natural light yet may have many doors (stalls), twists and turns that leave groups of people in a compromised situation with no ability to determine how to get out in an emergency.

Cost Impact: The code change proposal will increase the cost of construction

E35-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1006.3-E-WALTERS

E36-12
1007.1 (IFC [B] 1007.1)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1007.1 (IFC [B] 1007.1) Accessible means of egress required. *Accessible means of egress* shall comply with this section. *Accessible* spaces shall be provided with not less than one *accessible means of egress*. Where more than one *means of egress* are required by Section 1015.1 or 1021.1 from any *accessible* space, each *accessible* portion of the space shall be served by not less than two *accessible means of egress*.

Exceptions:

1. *Accessible means of egress* are not required <u>to be provided</u> in ~~alterations to~~ existing buildings.
2. One *accessible means of egress* is required from an *accessible mezzanine* level in accordance with Section 1007.3, 1007.4 or 1007.5.
3. In assembly areas with sloped or stepped *aisles*, one *accessible means of egress* is permitted where the common path of travel is *accessible* and meets the requirements in Section 1028.8.

Reason: The intent is to revise Section 1007.1 for consistency with the language in IBC 3411.6,and IEBC 410.6 and 705.

1. The language in these three sections reads as follows:
2. Accessible means of egress required by Chapter 10 of the *International Building Code* are not required to be provided in existing *facilities*.

The text in 1007.1 could be read to require accessible means of egress in existing buildings undergoing a change or occupancy. While there may be situations where accessible means of egress should be provided in existing buildings, this must be addressed separately. It was not the intent of the provisions in the four sections in the IBC and IEBC to have different requirements.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E36-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1007.1-E-BALDASSARRA-CTC.docx

E37 – 12
1007.1 (IFC [B] 1007.1)

Proponent: Gene Boecker, AIA, Code Consultants, Inc, representing self (geneb@codeconsultants.com)

Revise as follows:

1007.1 (IFC [B] 1007.1) Accessible means of egress required. Accessible means of egress shall comply with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress are required by Section 1015.1 or 1021.1 from any accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress.

Exceptions:

1. Accessible means of egress are not required in alterations to existing buildings.
2. One accessible means of egress is required from an accessible mezzanine level in accordance with Section 1007.3, 1007.4 or 1007.5.
3. In assembly areas with sloped or stepped aisles, one accessible means of egress is permitted where the common path of travel is accessible and meets the requirements in Section 1028.8.
4. <u>Accessible means of egress are not required from levels of parking garages that do not contain accessible parking spaces.</u>

Reason: According to Section 1105.1.1 and 1106.6 of the IBC, accessible parking is required on levels that have a direct connection to the building. Van accessible parking is allowed to be limited to the ground floor level. Hence accessible parking is not required on all levels of a parking garage.

It is often unclear whether an accessible means of egress, once provided for the accessible parking spaces within a garage on a single level, should be applied throughout the structure. Because the intent for accessible means of egress is to provide access for individuals with mobility disabilities, this would not be necessary on parking garage levels without accessible parking spaces.

Section 1007.2.1 of the IBC requires an elevator to serve as an accessible mean of egress in buildings where a required accessible floor is more than four stories above the level of exit discharge (a five story building). While accessible parking is not required on the upper levels of a garage (without access to the building on those levels) that does not mean that the upper levels are not to be designed for accessibility. It simply means that they are not required to be designed for mobility disabilities. The floors must still be designed for other types of disabilities. Protruding objects/headroom obstructions are still required to be addressed for visual disabilities and a telephone bank would need to provide units for the hearing impaired. Tactile exit signs are unaffected by this proposal because they are required under Section 1011.4 and are not a part of the accessible means of egress provisions in Section 1007.

Similarly, although the code contains an exemption for areas of refuge for parking garages, a 48 inch clear width between handrails would still be required since an open parking garage is usually without sprinklers. The purpose of the 48 inch clear width is to facilitate fire fighter capability to carry a wheelchair down the stairs. If there is no accessible parking on the upper levels, this too should not be a requirement.

While accessible parking may be provided on multiple levels because building entrances are provided at various levels, full compliance should not be necessary at levels where mobility accessibility is not an issue. If accessible parking is provided on all levels, then the accessible means of egress should be provided on all levels as well. However, if accessible parking is provided on only the grade level of an eight-level parking garage, the requirements for an accessible means of egress elevator should not apply and the stairways serving the upper levels should be designed based on required capacity rather than a blanket 48 inch between handrail requirement.

Cost Impact: The code change proposal will reduce the cost of construction in some instances.

E37-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1007.1 #2-E-Boecker.doc

E38-12
1007.3 (IFC [B] 1007.3)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1007.3 (IFC [B] 1007.3) Stairways. In order to be considered part of an *accessible means of egress*, a *stairway* between stories shall have a clear width of 48 inches (1219 mm) minimum between *handrails* and shall either incorporate an *area of refuge* within an enlarged floor-level landing or shall be accessed from either an *area of refuge* complying with Section 1007.6 or a *horizontal exit*. *Exit access stairways* that connect levels in the same story are not permitted as part of an *accessible means of egress*.

Exceptions:

1. Areas of refuge are not required at exit access stairways where a two-way communication is provided at the elevator landing in accordance with Section 1007.8.
2~~1.~~ The clear width of 48 inches (1219 mm) between *handrails* is not required in buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2.
3~~2.~~ *Areas of refuge* are not required at *stairways* in buildings equipped throughout by an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2.
4~~3.~~ The clear width of 48 inches (1219 mm) between *handrails* is not required for *stairways* accessed from a *horizontal exit*.
5~~4.~~ *Areas of refuge* are not required at *stairways* serving *open parking garages*.
6~~5.~~ *Areas of refuge* are not required for smoke protected seating areas complying with Section 1028.6.2.
7~~6.~~ The *areas of refuge* are not required in Group R-2 occupancies.

Reason: In an unsprinklered building with unenclosed exit access stairways permitted between stories an area of refuge is require to serve the stairway, which will result in a closet type area of refuge at the top of the stairway with two-way communication inside. At this location, the area of refuge would not be connected to a stairway enclosure, and there is a real chance that it will end up being used as a closet. From a technical point of view, where do you put this area of refuge in relation to the open exit access stairway and how close does it have to be to the open stairway? Does the stair have to be enclosed because of the connection requirements in 1007.3? Since the two-way communication is now required at the elevator lobby it would be more logical to allow the occupants with mobility impairments to move to the elevator landing and use that communication device and move them away from the open stairway.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E38-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1007.3-E-BALDARRASSA-CTC.docx

E39-12
1007.3, 1007.4 (IFC [B] 1007.3, 1007.4)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1007.3 (IFC [B] 1007.3) Stairways. In order to be considered part of an *accessible means of egress*, a *stairway* between stories shall have a clear width of 48 inches (1219 mm) minimum between *handrails* and shall either incorporate an *area of refuge* within an enlarged floor-level landing or shall be accessed from ~~either~~ an *area of refuge* complying with Section 1007.6 ~~or a *horizontal exit*~~. *Exit access stairways* that connect levels in the same story are not permitted as part of an *accessible means of egress*.

Exceptions:

1. The clear width of 48 inches (1219 mm) between *handrails* is not required in buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2.
2. *Areas of refuge* are not required at *stairways* in buildings equipped throughout by an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2.
3. The clear width of 48 inches (1219 mm) between *handrails* is not required for *stairways* ~~accessed from a *horizontal exit*~~ from a refuge area in conjunction with a horizontal exit.
4. *Areas of refuge* are not required at *stairways* serving *open parking garages*.
5. *Areas of refuge* are not required for smoke protected seating areas complying with Section 1028.6.2.
6. ~~The~~ *Areas of refuge* are not required at stairways in Group R-2 occupancies.
7. *Areas of refuge* are not required at *stairways* in *Group I-3 facilities*.
8. Areas of refuge are not required for stairways accessed from a refuge area in conjunction with a horizontal exit.

1007.4 (IFC [B] 1007.4) Elevators. In order to be considered part of an *accessible means of egress*, an elevator shall comply with the emergency operation and signaling device requirements of Section 2.27 of ASME A17.1. Standby power shall be provided in accordance with Chapter 27 and Section 3003. The elevator shall be accessed from either an *area of refuge* complying with Section 1007.6 or a *horizontal exit*.

Exceptions:

1. ~~Elevators are not required to be accessed from an *area*~~ *Areas of refuge* ~~or *horizontal exit*~~ *are not required at the elevator* in *open parking garages*.
2. *Areas of refuge* are not required at elevators in *Group I-3 facilities*.
3~~2.~~ ~~Elevators are not required to be accessed from an *area*~~ *Areas of refuge* ~~or *horizontal exit* in~~ are not required in buildings and facilities equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2.
4~~3.~~ Areas of refuge are not required at Elevators not required to be located in a shaft in accordance with Section 712 ~~are not required to be accessed from an *area of refuge* or *horizontal exit*~~.
5~~4.~~ Areas of refuge are not required at Elevators ~~are not required to be accessed from an *area of refuge* or *horizontal exit* for~~ serving smoke protected seating areas complying with Section 1028.6.2.
6. Areas of refuge are not required for elevators accessed from a refuge area in conjunction with a horizontal exit.

Reason: This proposal is for the most part editorial and makes the language in the exceptions consistent. There is with one new items added and one relocation for added clarity.

"Areas of refuge are not required at stairways/elevators in Group I-3 facilities" is a new exception to coordinate with the DOJ 2010 ADA Standards for Accessible Design. The Department of Justice (ADA 207.2 Exception 2) had concerns that areas of refuge could pose security risks in correctional facilities due to their enclosed nature, and a building designer has the option of locating a facility's accessible spaces such that an elevator need never be used as part of an accessible means of egress.

" Areas of refuge are not required for stairways/elevators accessed from a refuge area in conjunction with a horizontal exit" clarifies that a redundant area of refuge is not needed immediately adjacent to the elevator where a refuge area and horizontal exit to the elevator are provided.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E39-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1007.3 #2-E-BALDASSARRA-CTC.docx

E40 – 12
1007.4 (IFC [B] 1007.4)

Proponent: Brian Black, BDBlack Codes, Inc representing National Elevator Industry Inc. (bdblack@neii.org)

Revise as follows:

1007.4 (IFC [B] 1007.4) Elevators. ~~In order to be considered~~ Where elevators are part of an accessible means of egress, ~~an elevator shall comply with the emergency operation and signaling device requirements of Section 2.27 of ASME A17.1. S~~standby power shall be provided in accordance with Chapter 27 and Section 3003. The elevator shall be accessed from either an area of refuge complying with Section 1007.6 or a horizontal exit.

Exceptions:

1. Elevators are not required to be accessed from an area of refuge or horizontal exit in open parking garages.
2. Elevators are not required to be accessed from an area of refuge or horizontal exit in buildings and facilities equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.
3. Elevators not required to be located in a shaft in accordance with Section 712 are not required to be accessed from an area of refuge or horizontal exit.
4. Elevators are not required to be accessed from an area of refuge or horizontal exit for smoke protected seating areas complying with Section 1028.6.2.

Reason: All new elevators must comply with the emergency operation and signalling device requirements of Section 2.27 of ASME A17.1 so this language is unnecessary. See Section 3001.2

Cost Impact: None

E40-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1007.4-E-Black.doc

E41-12
1007.5 (IFC [B] 1007.5)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1007.5 (IFC [B] 1007.5) Platform lifts. Platform ~~(wheelchair)~~ lifts shall ~~not~~ be permitted to serve as part of an accessible means of egress~~, except~~ where allowed as part of a required accessible route in Section 1109.8~~, Items 1 through 9~~ except for Item 10. Standby power for the platform lift shall be provided in accordance with Chapter 27 ~~for platform lifts permitted to serve as part of a means of egress~~.

Reason: This is an editorial cleanup of this existing requirement. With the current language people often interpret Item "1 through 9" as a typo instead of not allowing #10. The reason to change "items 1 through 9 [excepting 10]" to specifically exempting Item 10 is to clarify that it is not appropriate to permit a platform lift installed due to exterior site constraints to serve as assessable means of egress. Whereas Items 1 through 9 in Section 1109.8 address very small spaces with minimal occupant loads, Item 10 would permit a platform lift to serve as an accessible route into a health care facility, senior apartment building, assisted loving project, and other occupancies that may hold dozens of persons who need an accessible means of egress from the facility. The slow speed and long cycling time of a platform lift would make its use as an accessible means of egress for more than a few persons impracticable in an emergency.

The remaining changes are editorial cleanup. (ADA 207.2)

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E41-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1007.5-E-BALDASSARRA-CTC.docx

E42 – 12
1007.5 (IFC [B] 1007.5)

Proponent: Jerome Seville, Commonwealth of Pennsylvania representing self (Jseville@pa.gov)

Revise as follows:

1007.5 (IFC [B] 1007.5) Platform lifts. Platform (wheelchair) lifts shall not serve as part of an *accessible means of egress*, except where allowed as part of a required *accessible route* in Section 1109.8, Items 1 through 9. Platform lifts permitted to serve as part of an accessible route by Item 10 in Section 1109.8 shall not serve as part of an accessible means of egress for Group I-1 or I-2 facilities or where the exit will serve more than 200 occupants. Standby power shall be provided in accordance with Chapter 27 for platform lifts permitted to serve as part of a *means of egress*.

Reason: There will be occupancies, even in new construction, where the only practical means of access into the structure will be by a wheelchair lift. With the entrance constituting one of the means of egress, it would be beneficial to allow the use of the lift to exit.

Assisted living facilities, hospitals and nursing homes (Groups I-1 and I-2) have a higher excepted number of people that may have difficulty with stairways. The occupancy limit of 200 for other occupancies is being based upon IBC Section 1007.6.1, where it is being assumed that there will be one wheelchair individual per 200 occupants; thus only one wheelchair in the area being evacuated by the lift.

Cost Impact: None

E42-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1007.5-E-Seville.doc

E43-12
1007.5.1 (IFC [B] 1007.5.1)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Delete without substitution:

~~**1007.5.1 (IFC [B] 1007.5.1) Openness.** Platform lifts on an accessible means of egress shall not be installed in a fully enclosed hoistway.~~

Reason: The intent of this proposal is to delete this requirement for platform lifts that serve as part of the accessible means of egress. The platform lift safety standard, ASME A18.1, has been revised to allow for platform lifts to penetrate a floor. Vertical openings are required in the IBC to be protected in accordance with Section 712. Platform lifts permitted as part of the accessible route into as space are addressed in ADA 207.2 and IBC 1109.8. While most are for a change in elevation that would not penetrate a floor, some provisions, such as non-public areas with 5 or fewer occupants, may involve a floor penetration.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E43-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1007.5.1-E-BALDASSARRA-CTC.docx

E44 – 12
1007.5.1 (IFC [B] 1007.5.1)

Proponent: Jerome Seville, Commonwealth of Pennsylvania representing self (Jseville@pa.gov)

Revise as follows:

1007.5.1 (IFC [B] 1007.5.1) Openness. Platform lifts on an *accessible means of egress* shall not be installed in a fully enclosed hoistway.

> **Exception:** Platforms lifts shall be permitted to be installed in a fully enclosed hoistway where a two-way communication system complying with Section 1007.8 is provided at the platform lift landings at other than the level of exit discharge.

Reason: ASME A18.1now allow lifts to penetrate a floor line which in turn would most likely require a shaft.

Cost Impact: Nominal $600.00 for a two-way communication system.

E44-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1007.5.1-E-Seville.doc

E45-12
1007.6, 1007.6.2 (IFC [B] 1007.6, 1007.6.2)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1007.6 (IFC [B] 1007.6) Areas of refuge. Every required area of refuge shall be accessible from the space it serves by an accessible means of egress.

1007.6.1 (IFC [B] 1007.6.1) Travel distance. The maximum travel distance from any accessible space to an area of refuge shall not exceed the travel distance permitted for the occupancy in accordance with Section 1016.1.

1007.6.2 (IFC [B] 1007.6.2) Stairway or elevator access. Every required area of refuge shall have direct access to a stairway ~~within an exit enclosure~~ complying with Sections 1007.3 and 1022 or an elevator complying with Section 1007.4. ~~Where an elevator lobby is used as an area of refuge , the shaft and lobby shall comply with Section 1022.9 for smokeproof enclosures except where the elevators are in an area of refuge formed by a horizontal exit or smoke barrier.~~

~~1007.6.1~~ 1007.6.3 (IFC [B] ~~1007.6.1~~ 1007.6.3) Size. *(no change)*

~~1007.6.2~~ 1007.6.4 (IFC [B] ~~1007.6.2~~ 1007.6.4) Separation. Each *area of refuge* shall be separated from the remainder of the story by a *smoke barrier* complying with Section 709 or a *horizontal exit* complying with Section 1025. Each *area of refuge* shall be designed to minimize the intrusion of smoke.

> **Exception:** *Areas of refuge* located within an enclosure for *exit access stairways* or *interior exit stairways* *complying with Section 1009.3 or Section 1022*.

~~1007.6.3~~ 1007.6.5 (IFC [B] ~~1007.6.3~~ 1007.6.5) Two-way communication. *(no change)*

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

The ICC Executive Board directed the Code Technology Committee (CTC) to study the issue of elevator lobby separations in November 2010 due to the number of code change proposals submitted addressing this issue over a number of code change cycles. The Code Technology Committee formed a study group on the elevator lobby separation issue in December 2010. Note that this subject had been previously addressed by CABO/BCMC in 1986 with a similar conclusion. The code change proposals submitted are the result of the CTC's study of the issue. Note that the scope of the activity was as follows:

Scope

- Review the need for elevator lobbies**,** with emphasis on building use, building and hoistway height, active and passive fire protection features associated with the aforementioned.
- Review the differences and specific needs when dealing with elevator lobbies of traditional-use elevators, fire service elevators, and occupant evacuation elevators.
- Review related code provisions, such as egress from and through elevator lobbies.
- Review the appropriate use of alternatives including pressurization of hoistways, additional doors, roll-down style barriers, and gasketing systems.
- Review with members of elevator industry to scope the requirements of applicable elevator reference standards as it deals with elevator lobby design, use and construction.
- Review design and construction requirements for elevator lobbies, including but not limited to dimensions, location and separation.
- Review applicable code change history, technical studies and loss statistics as part of this review.

Based upon the extensive nature of this area of study, 5 Task Groups were formed during the process to provide in-depth review and to manage the number of issues. These task groups developed a number of proposals that were coordinated throughout the process.

More information on this CTC area of study can be found at the following link.
http://www.iccsafe.org/cs/CTC/Pages/ElevatorLobbies.aspx

This proposal is intended to correlate the area of refuge elevator lobby requirements with other related elevator lobby requirements. This section currently requires that when an enclosed elevator lobby is used as an area of refuge that the lobby and the hoistway be protected as a smokeproof enclosure. Reference to the smoke proof enclosure requirements seemed inappropriate as they are focused upon stairs and would not be practical to apply to elevator lobbies. For instance it is unclear if an enclosed elevator lobby would be required to have a vestibule. Also if the pressurization option is chosen the criteria and requirements are focused upon stairs not elevator hoistway pressurization. The solution was to simply rely on the separation required for areas of refuge in general as that was the original intent of the requirement.

See discussion on CTC elevator lobby proposal coordination in code changes to Section 713.14.

Cost Impact: None

E45-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1007.6-E-BALDASSARRA-CTC.docx

E46 – 12

1007.2, 1007.6.2, 1007.7, 1007.7.1, 1007.7.2 (IFC [B] 1007.2, 1007.6.2, 1007.7, 1007.7.1, 1007.7.2)

Proponent: Ron Clements, Chesterfield County Building Inspection Department representing self (clementsro@chesterfield.gov)

Revise as follows:

1007.2 (IFC [B] 1007.2) Continuity and components. Each required accessible means of egress shall be continuous to a public way and shall consist of one or more of the following components:

1. Accessible routes complying with Section 1104.
2. Interior exit stairways complying with Sections 1007.3 and 1022.
3. Interior exit access stairways complying with section s 10007.3 and 1009.3.
4. Exterior exit stairways complying with Sections 1007.3 and 1026 and serving levels other than the level of exit discharge.
5. Elevators complying with Section 1007.4.
6. Platform lifts complying with Section 1007.5.
7. Horizontal exits complying with Section 1025.
8. Ramps complying with Section 1010.
9. Areas of refuge complying with Section 1007.6.
10. Exterior area for assisted rescue complying with Section 1007.7 serving exits at the level of exit discharge.

1007.6.2 (IFC [B] 1007.6.2) Separation. Each *area of refuge* shall be separated from the remainder of the story by a *smoke barrier* complying with section 710 or a *horizontal exit* complying with Section 1025. Each *area of refuge* shall be designed to minimize the intrusion of smoke.

Exceptions:

1. *Areas of refuge* located within *an exit enclosure for exit access stairways or interior exit stairways*.
2. *Areas of refuge* in outdoor facilities where exit access is essentially open to the outside.

1007.6.3 (IFC [B] 1007.6.3) Two-way communication. *(no change)*

1007.7 (IFC [B] 1007.7) Exterior area for assisted rescue. Exterior areas for assisted rescue shall be accessed by an accessible route from the area served. ~~Exterior areas for assisted rescue shall be permitted in accordance with section 1007.7.1 or 1007.7.2.~~

~~**1007.7.1 (IFC [B] 1007.7.1) Level of exit discharge.**~~ Where the exit discharge does not include an accessible route from an exit located on the level of exit discharge to a public way, an exterior area of assisted rescue shall be provided on the exterior landing in accordance with section 1007.7.3 through ~~1007.7.6~~ 1007.7.4.

~~**1007.7.2 (IFC [B] 1007.7.2) Outdoor facilities.** Where exit access from the area serving outdoor facilities is essentially open to the outside, an exterior area of assisted rescue is permitted as an alternative to an area of refuge. Every required exterior area of assisted rescue shall have direct access to an interior exit stairway, exterior stairway, or elevator serving as an accessible means of egress component. The exterior area of assisted rescue shall comply with sections 1007.7.3 through 1007.7.6 and shall be provided with a two-way communication system complying with sections 107.8.1 and 1007.8.2.~~

~~1007.7.3~~ 1007.7.1 (IFC [B] ~~1007.7.3~~ 1007.7.1)Size. *(No change to current text)*

~~1007.7.4~~ 1007.7.2 (IFC [B] ~~1007.7.4~~ 1007.7.2) Separation. *(No change to current text)*

~~1007.7.5~~ 1007.7.3 (IFC [B] ~~1007.7.5~~ 1007.7.3) Openness. *(No change to current text)*

~~1007.7.6~~ 1007.7.4 (IFC [B] ~~1007.7.6~~ 1007.7.4) Stairway. *(No change to current text)*

Reason: The purpose of this code change is to simplify the requirements for exterior area of assisted rescue and return the concept back to its original purpose as an exit discharge component. This code change also addresses outdoor facilities with regards to area of refuge and exterior area of assisted rescue requirements that were introduced into the code by code change E38-09/10. The result of code change E38-09/10 is to allow what is essentially an area of refuge to be designed with the omission of the smoke rated enclosure around the area of refuge when the area of refuge is located in a structure that is open to the outdoor air by calling it an exterior area of assisted rescue. The problem is that the exterior area for assisted rescue is a specialized accessible means of egress component that was created as an element of a grade level exit discharge, exterior of the building on the outside of the exterior wall, and it is to awkward to attempt to use the exterior area for assisted rescue section as the method to accomplish the goal of E38-09/10. That is why it took so many modifications throughout section 1007.7 to accomplish.

Another problem is that 1007.7.2 is addressing an outdoor facility where the exterior area of assisted rescue will likely be within the building perimeter and the building may not have exterior walls or even a roof. That condition raises the question of how to comply with section 1007.7.4.2 for separation. Is the intent to provide a 1 hour rated "exterior wall" within the building perimeter that may not even have a roof at which to terminate? This is further confused when the requirements for openness in 1007.7.5 are added to the question. It appears that though section 1007.7.4 for separation is referenced by 1007.7.2 as applicable, 1007.7.4 Separation is not applicable and no rating is required since there is no exterior wall to provide a separation, and since the building is open the separation is not needed.

Since the net result of the E38-09/10 change is to keep all of the aspects of an area of refuge accept the separation requirement it is cleaner and simpler to accomplish that goal with a single exception to 1007.6.1 Separation. The following are explanations for each specific change:

1007.2 item #10- "serving exits at the level of exit discharge" was added to clarify that exterior area of assisted rescue is a level of exit discharge component. Note that item or component #4 for exterior exit stairways already states that exterior exit stairs serve "levels other than the level of exit discharge".

1007.6.2 Exception #1 and #2- The current exception was numbered one and new exception #2 was added. This new exception allows the area of refuge to be exempted from the rated separation requirements as is intended with the current 2012 code text approved through E38-09/10.

1007.7 and 1007.7.1- The language from section 1007.7.1 that addresses exterior areas of assisted rescue on the level of exit discharge has been moved up to the parent section 1007.7 since the result of this code change is that exterior areas of assisted rescue will only serve the level of exit discharge. Sub-sections 1007.7.1 and 1007.7.2 are proposed to be deleted without replacement.

1007.7.2-The provisions of section 1007.7.2 are addressed in the areas of refuge section 1007.6 with the addition of the exception proposed for 1007.6.2. The requirements and allowances of the first sentence of section 1007.7.2 are accomplished with the addition of exception #2 proposed for 1007.6.2 for areas of refuge. The requirements and allowances of the second sentence of section 1007.7.2 is accomplished with existing text in section 1007.6 for areas of refuge. The requirements of the third sentence of section 1007.7.2 are accomplished with the current provisions for area of refuge with the separation exception, which includes the size of the area and the two way communication. The stairway provisions including exception for sprinkler in 1007.7.6 are provided by the stairway requirements that exist in section 1007.3.

Cost Impact: This is strictly an editorial change with no alteration of code requirements therefore this change will not increase the cost of construction.

E46-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1007.2-E-Clements.doc

E47 – 12
1007.7.5 (IFC [B] 1007.7.5)

Proponent: Jerome Seville, Commonwealth of Pennsylvania representing self (Jseville@pa.gov)

Revise as follows:

1007.7.5 (IFC [B] 1007.7.5) Openness. The exterior area for assisted rescue shall be open to the outside air. The sides other than the separation walls shall be at least 50 percent open, and the open area shall be distributed so as to minimize the accumulation of smoke or toxic gases. Where the floor of the exterior area for assisted rescue is at 60 inches (1,524 mm) or more below finished grade, a two-way communication system, complying with Sections 1007.8.1 and 1007.8.2 shall be provided.

Reason: There are instances where an exterior area of assisted rescue is located within an areaway to a basement and a disabled individual may not be readily seen by responders.

Cost Impact: $2,000.00 to $4,000.00 for communication system

E47-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1007.7.1-E-Seville.doc

E48 – 12
1007.8 (IFC [B] 1007.8)

Proponent: Steve Pfeiffer representing City of Seattle, Dept of Planning & Development (steve.pfeiffer@seattle.gov)

Revise as follows:

1007.8 (IFC [B] 1007.8) Two-way communication. A two-way communication system complying with Sections 1007.8.1 and 1007.8.2 shall be provided at the landing serving each elevator ~~landing~~ or bank of elevators on each *accessible* floor that is one or more stories above or below the *story* of *exit discharge.* ~~complying with Sections 1007.8.1 and 1007.8.2.~~

Exceptions:

1. Two-way communication systems are not required at the landing serving each elevator ~~landing~~ or bank of elevators where the two-way communication system is provided within *areas of refuge* in accordance with Section 1007.6.3.
2. Two-way communication systems are not required on floors provided with *exit ramps* conforming to the provisions of Section 1010.

Reason: The purpose of this change is to clarify which elevator landings are required to have a two-way communication system where there are multiple elevators or banks of elevators on an accessible floor. The current language is clear where there is only one elevator, but if there are multiple elevators, it's unclear whether communication is required at one elevator, each elevator, or whether a communication device serving a bank of elevators would suffice. This change would require a single two-way communication at the landing for each single elevator or each bank of elevators on the floor. References to Sections 1007.8.1 and 1007.8.2 are also relocated as to more clearly apply to the communication system rather than the story of exit discharge.

Cost Impact: The code change proposal will not increase the cost of construction.

E48-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1007.8-E-Pfeiffer.doc

E49 – 12
1007.8 (IFC [B] 1007.8)

Proponent: Maureen Traxler, City of Seattle Dept of Planning & Development, representing City of Seattle Dept of Planning & Development (maureen.traxler@seattle.gov)

Revise as follows:

1007.8 (IFC [B] 1007.8) Two-way communication. Where elevators serve as part of an accessible means of egress, a two-way communication system shall be provided at the elevator landing on each *accessible* floor that is one or more stories above or below the *story* of *exit discharge* complying with Sections 1007.8.1 and 1007.8.2.

Exceptions:

1. Two-way communication systems are not required at the elevator landing where the two-way communication system is provided within areas of refuge in accordance with Section 1007.6.3.
2. Two-way communication systems are not required on floors provided with ramps conforming to the provisions of Section 1010.

Reason: The purpose of this proposal is to clarify that a communication system is only required if the landing serves elevators that are part of an accessible means of egress system. The current language could be interpreted as requiring it at every elevator landing on an accessible floor. However, the charging language in Section 1007.1 states that "Accessible means of egress shall comply with this section" meaning that 1007.8 would only apply to elevators that are part of an accessible means of egress.

Cost Impact: The code change proposal will not increase the cost of construction.

E49-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1007.8-E-Traxler.doc

E50 – 12
1008.1.1 (IFC [B] 1008.1.1)

Proponent: Eirene Oliphant, MCP, BRR Architecture, representing self (eirene.oliphant@brrarch.com)

Revise as follows:

1008.1.1 (IFC [B] 1008.1.1) Size of doors. The minimum width of each door opening shall be sufficient for the occupant load thereof and shall provide a clear width of 32 inches (813 mm). Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). Where this section requires a minimum clear width of 32 inches (813 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 32 inches (813 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. Means of egress doors in a Group I-2 occupancy used for the movement of beds shall provide a clear width not less than 411/2 inches (1054 mm). The height of door openings shall not be less than 80 inches (2032 mm).

Exceptions:

1. The minimum and maximum width shall not apply to door openings that are not part of the required means of egress in Group R-2 and R-3 occupancies.
2. Door openings to resident sleeping units in Group I-3 occupancies shall have a clear width of not less than 28 inches (711 mm).
3. Door openings to storage closets less than 10 square feet (0.93 m2) in area shall not be limited by the minimum width.
4. Width of door leaves in revolving doors that comply with Section 1008.1.4.1 shall not be limited.
5. Door openings within a dwelling unit or sleeping unit shall not be less than 78 inches (1981 mm) in height.
6. Exterior door openings in dwelling units and sleeping units, other than the required exit door, shall not be less than 76 inches (1930 mm) in height.
7. In other than Group R-1 occupancies, the minimum widths shall not apply to interior egress doors within a dwelling unit or sleeping unit that is not required to be an Accessible unit, Type A unit or Type B unit.
8. Door openings required to be accessible within Type B units shall have a minimum clear width of 31.75 inches (806 mm).
9. <u>Doors serving walk-in coolers and freezers shall be permitted a maximum width for a swinging door leaf of 60 inches (1524 mm) nominal.</u>

Reason: Due to the square footages of some freezers and coolers, the use of pivoted or side-hinged swinging type door is required for meeting egress requirements. In an effort to give designers more options for utilizing doors more efficiently, a five foot wide door would allow for the use of a forklift.

Cost Impact: The code change proposal will not increase the cost of construction.

E50-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.1-E-OLIPHANT

E51 – 12
1008.1.1 (IFC [B] 1008.1.1)

Proponent: David R. Scott, AIA, representing Target Corporation (David.Scott@Target.com)

Revise as follows:

1008.1.1 (IFC [B] 1008.1.1) Size of doors. The minimum width of each door opening shall be sufficient for the occupant load thereof and shall provide a clear width of 32 inches (813 mm). Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). Where this section requires a minimum clear width of 32 inches (813 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 32 inches (813 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. Means of egress doors in a Group I-2 occupancy used for the movement of beds shall provide a clear width not less than 411/2 inches (1054 mm). The height of door openings shall not be less than 80 inches (2032 mm).

Exceptions:

1. The minimum and maximum width shall not apply to door openings that are not part of the required means of egress in Group R-2 and R-3 occupancies.
2. Door openings to resident sleeping units in Group I-3 occupancies shall have a clear width of not less than 28 inches (711 mm).
3. Door openings to storage closets less than 10 square feet (0.93 m2) in area shall not be limited by the minimum width.
4. Width of door leaves in revolving doors that comply with Section 1008.1.4.1 shall not be limited.
5. Door openings within a dwelling unit or sleeping unit shall not be less than 78 inches (1981 mm) in height.
6. Exterior door openings in dwelling units and sleeping units, other than the required exit door, shall not be less than 76 inches (1930 mm) in height.
7. In other than Group R-1 occupancies, the minimum widths shall not apply to interior egress doors within a dwelling unit or sleeping unit that is not required to be an Accessible unit, Type A unit or Type B unit.
8. Door openings required to be accessible within Type B units shall have a minimum clear width of 31.75 inches (806 mm).
9. <u>Doors to walk-in freezers and coolers less than 1000 square feet (93 m^2) in area shall have a maximum width of 60 inches (1524 mm).</u>

Reason: Freezers and coolers are used by employees that are familiar with their operation. Such doors would still need to meet the door opening force of section 1008.1.3. Section 1008.1.2, exception 1 indicates that private garages, office areas, factory and storage areas with an occupant load of 10 or less do not need to be pivoting or side hinged swinging type doors. Therefore, in such areas, an overhead type sectional door could be used as the egress door. I would expect a 60" swinging type freezer door to open easier than a sectional overhead type door.

Also note that Section 1103.2.15 indicates that walk-in coolers and freezers intended for employee use only are not required to be accessible. The code commentary indicates they may have raised floors, special door seals, and unconventional door-operating hardware.

Cost Impact: The code change proposal will not increase the cost of construction.

E51-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.1-E-Scott.doc

E52-12
1008.1.1 (IFC [B] 1008.1.1)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1008.1.1 (IFC [B] 1008.1.1) Size of doors. The minimum width of each door opening shall be sufficient for the occupant load thereof and shall provide a clear width of 32 inches (813 mm). …

Exceptions:

1. The minimum and maximum width shall not apply to door openings that are not part of the required means of egress in Group R-2 and R-3 occupancies.
2. Door openings to resident sleeping units in Group I-3 occupancies shall have a clear width of not less than 28 inches (711 mm).
3. Door openings to storage closets less than 10 square feet ($0.93m^2$) in area shall not be limited by the minimum width.
4. Width of door leaves in revolving doors that comply with Section 1008.1.4.1 shall not be limited.
5. Door openings within a dwelling unit or sleeping unit shall not be less than 78 inches (1981 mm) in height.
6. Exterior door openings in dwelling units and sleeping units, other than the required exit door, shall not be less than 76 inches (1930 mm) in height.
7. In other than Group R-1 occupancies, the minimum widths shall not apply to interior egress doors within a dwelling unit or sleeping unit that is not required to be an Accessible unit, Type A unit or Type B unit.
8. Door openings required to be accessible within Type B units shall have a minimum clear width of 31 ¾ inches (806 mm).
9. <u>In Group R-1 dwelling units or sleeping units not required to be Accessible units, the minimum width shall not apply to doors for showers or saunas.</u>

Reason: IBC/IPC does not specify a width for sauna or shower doors at this time. Since these doors are literally means of egress, the door would have to meet a 32" clear width. The exception is consistent with ADA 224.1.2.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E52-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.1 - E-BALDASSARRA-CTC.docx

E53 – 12
1008.1.1 (IBC [F] 1008.1.1)

Proponent: Randall R. Dahmen, P.E. Wisconsin licensed Commercial Building Inspector, representing self

Revise as follows:

1008.1.1 (IFC [B] 1008.1.1) Size of doors. The minimum width of each door opening shall be sufficient for the occupant load thereof and shall provide a clear width of 32 inches (813 mm). Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). Where this section requires a minimum clear width of 32 inches (813 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 32 inches (813 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. Means of egress doors in a Group I-2 occupancy used for the movement of beds shall provide a clear width not less than 41 ½ inches (1054 mm). The height of doors shall not be less than 80 inches (2032 mm).

Exceptions:

1. The minimum and maximum width shall not apply to door openings that are not part of the required means of egress in Group R-2 and R-3 occupancies.
2. Door openings to resident sleeping units in Group I-3 occupancies shall have a clear width of not less than 28 inches (711 mm).
3. Door openings to storage closets less than 10 square feet (0.93m^2) in area shall not be limited by the minimum width.
4. Width of door leaves in revolving doors that comply with Section 1008.1.4.1 shall not be limited.
5. Door openings within a dwelling unit or sleeping unit shall not be less than 78 inches (1981 mm) in height.
6. Exterior door openings in dwelling units and sleeping units, other than the required exit door, shall not be less than 76 inches (1930 mm) in height.
7. In other than Group R-1 occupancies, the minimum widths shall not apply to interior egress doors within a dwelling unit or sleeping unit that is not required to be an Accessible unit, Type A unit or Type B unit.
8. Door openings required to be accessible within Type B units shall have a minimum clear width of 31 ¾ inches (806 mm).
9. <u>The minimum door width shall not apply to a non-accessible toilet stall, shower stall, or other similar compartment,</u>

Reason: The proposed exception recognizes that most non-accessible toilet stalls, shower stalls, etc. are not 32 inches wide.

Cost Impact: The code change proposal will not increase the cost of construction.

E53-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.1-E-Dahmen.doc

E54 – 12
202, 1008.1.2, 1008.1.4.3 (IFC [B] 1008.1.2, 1008.1.4.3)

Proponent: John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA) (jwoestman@kellencompany.com)

Add the definition as follows:

SECTION 202
DEFINITIONS

HORIZONTAL SLIDING ACCORDION FOLDING DOOR. An accordion-folding style multiple-section track-hung moveable door assembly.

Revise as follows:

1008.1.2 (IFC [B] 1008.1.2) Door swing. Egress doors shall be of the pivoted or side-hinged swinging type.

Exceptions:

1. Private garages, office areas, factory and storage areas with an *occupant load* of 10 or less.
2. Group I-3 occupancies used as a place of detention.
3. Critical or intensive care patient rooms within suites of health care facilities.
4. Doors within or serving a single *dwelling unit* in Groups R-2 and R-3.
5. In other than Group H occupancies, revolving doors complying with Section 1008.1.4.1.
6. In other than Group H occupancies, *horizontal sliding accordion folding doors* complying with Section 1008.1.4.3 are permitted in a *means of egress*.
7. Power-operated doors in accordance with Section 1008.1.4.2.
8. Doors serving a bathroom within an individual *sleeping unit* in Group R-1.
9. In other than Group H occupancies, manually operated horizontal sliding doors are permitted in a *means of egress* from spaces with an *occupant load* of 10 or less.

Doors shall swing in the direction of egress travel where serving a room or area containing an *occupant load* of 50 or more persons or a Group H occupancy.

1008.1.4.3 (IFC [B] 1008.1.4.3) Horizontal sliding accordion folding doors. In other than Group H occupancies, *horizontal sliding accordion folding* doors permitted to be a component of a *means of egress* in accordance with Exception 6 to Section 1008.1.2 shall comply with all of the following criteria:

1. The doors shall be power operated and shall be capable of being operated manually in the event of power failure.
2. The doors shall be openable by a simple method from both sides without special knowledge or effort.
3. The force required to operate the door shall not exceed 30 pounds (133 N) to set the door in motion and 15 pounds (67 N) to close the door or open it to the minimum required width.
4. The door shall be openable with a force not to exceed 15 pounds (67 N) when a force of 250 pounds (1100 N) is applied perpendicular to the door adjacent to the operating device.
5. The door assembly shall comply with the applicable *fire protection rating* and, where rated, shall be self-closing or automatic closing by smoke detection in accordance with Section 716.5.9.3, shall be installed in accordance with NFPA 80 and shall comply with Section 716.
6. The door assembly shall have an integrated standby power supply.
7. The door assembly power supply shall be electrically supervised.
8. The door shall open to the minimum required width within 10 seconds after activation of the operating device.

Reason: This proposal is intended to clarify the IBC.

Our BHMA members are seeing code officials, specifiers, and other stakeholders questioning or attempting to apply the requirements of 1008.1.4.3 to the doors included in 1008.1.4.2. Currently, both IBC Sections 1008.1.4.2 and 1008.1.4.3 could be (incorrectly) interpreted as applying to the same types of sliding doors (power-operated horizontal sliding doors). However, the intent of the code is that these sections apply to doors of significantly different configurations.

The doors of 1008.1.4.2 are the more common power-operated doors such as the doors installed at the entrances to stores, businesses, hospitals, and the like. When a pedestrian is not present, these doors usually are in a closed position, and are powered open for passage, and then powered closed. The power operated doors included within the scope of the standards referenced in 1008.1.4.2 are rarely used where a fire-rated opening protective is required.

The doors in 1008.1.4.3 are an accordion-style folding door assembly which slides horizontally. In the opening, these doors are usually kept in an open position like many other fire-rated doors or smoke-rated doors protecting elevator lobbies, or other gathering areas. The doors in 1008.1.4.3 may travel on a track in a straight line, but may also travel on a track that has a curve or curves.

The proposed definition and text revisions are intended to not revise the technical requirements of the IBC.

Cost Impact: None

E54-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.2-E-Woestman.doc

E55 – 12
1008.1.2, 1008.1.4.5(New); [IFC [B] 202, 1008.1.2, 1008.1.4.5(New)]

Proponent: David Dodge, McKeon Door Company, representing self (ddodge@mckeondoor.com)

Revise as follows:

1008.1.2 (IFC [B] 1008.1.2) Door swing. Egress doors shall be of the pivoted or side-hinged swinging.

Exceptions:

1. Private garages, office areas, factory and storage areas with an occupant load of 10 or less.
2. Group I-3 occupancies used as a place of detention.
3. Critical or intensive care patient rooms within suites of health care facilities.
4. Doors within or serving a single dwelling unit in Groups R-2 and R-3.
5. In other than Group H occupancies, revolving doors complying with Section 1008.1.4.1.
6. In other than Group H occupancies, horizontal sliding doors complying with Section 1008.1.4.3 are permitted in a means of egress.
7. Power-operated doors in accordance with Section 1008.1.4.2.
8. Doors serving a bathroom within an individual sleeping unit in Group R-1.
9. In other than Group H occupancies, manually operated horizontal sliding doors are permitted in a means of egress from spaces with an occupant load of 10 or less.
10. In other than Group H occupancies, flexible fabric swing doors complying with Section 1008.1.4.5 are permitted in a means of egress from spaces with an occupant load of less than 50.

Doors shall swing in the direction of egress travel where serving a room or area containing an occupant load of 50 or more persons or a Group H occupancy.

1008.1.4.5 (IFC [B] 1008.1.4.5) Flexible Fabric Swing Doors. In other than Group H occupancies, flexible fabric swing doors serving as a component of a means of egress in accordance with Exception 10 of Section 1008.1.2 shall comply with the following criteria:

1. Where this door assembly is part of a fire-resistance-rated wall, the door assembly shall comply with the opening protective requirements in Section 716.
2. The door shall swing by means of continuous flexible fabric extending full height from the top of the door leaf to the bottom and shall incorporate a full width pivoting bottom bar.
3. The door shall be self-closing. When in the fully closed position the door shall be held in the closed position with the use of a full height self-attaching fastener.
4. The door shall be manually operable by one operation from both sides without special knowledge or effort.
5. The door shall be set in motion when subjected to a maximum force of 30-pound (133-N) and shall swing to a full open position when subjected to a maximum force or 15-pound (67 N).
6. Location of applied forces shall be to the direction of the swing from the egress side and to the pull handle from the opposite side.

Reason: Fire and smoke rated fabric that has been tested and labeled under UL standards can be installed in various opening protective applications where egress is required. However, the code does not currently include provisions for swing doors that are constructed of materials other than hard surface type when pushed open or held in the closed position. Technology is now available in the market place to incorporate flexible fabric door panels that are collapsible in the rolled-up position and egress compliant in the deployed position. This code change is to introduce, as an acceptable component of the means of egress system, a soft-surface style swing door that meets the basic fundamental requirements currently in the code for conventional hard surface style swing doors. To view this new technology functioning in a means of egress please go to www.youtube.com and search McKeon Door Company and watch the egress video titled FireFighter D200E.

Cost Impact: None

E55-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.2-E-Dodge.doc

E56 – 12

202, 1008.1.4.1, Table 1008.1.4.1, 1008.1.4.1.1, 1008.1.4.1.2, Chapter 35 (IFC [B] 202, 1008.1.4.1, Table 1008.1.4.1, 1008.1.4.1.1, 1008.1.4.1.2, Chapter 80)

Proponent: John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA) (jwoestman@kellencompany.com)

Add the definition as follows:

SECTION 202
DEFINITIONS

BREAKOUT. For revolving doors, a process whereby wings or door panels can be pushed open manually for *means of egress* travel.

Revise as follows:

1008.1.4.1 (IFC [B] 1008.1.4.1) Revolving doors. Revolving doors shall comply with the following:

1. Revolving doors shall comply with BHMA A156.27 and shall be installed in accordance with the manufacturer's installation instructions.
2. ~~Each revolving door shall be capable of collapsing into a bookfold position with parallel egress paths providing an aggregate width of 36 inches (914 mm).~~ Each revolving door shall be capable of *breakout* in accordance with BHMA A156.27 and shall provide an aggregate width of not less than 36 inches (914 mm).

~~2.~~3. A revolving door shall not be located within 10 feet (3048 mm) of the foot of or top of *stairs* or escalators. A dispersal area shall be provided between the *stairs* or escalators and the revolving doors.

~~3.~~4. The revolutions per minute (rpm) for a revolving door shall not exceed ~~those shown in Table 1008.1.4.1.~~the maximum rpm as specified in BHMA A156.27.

5. An emergency stop switch shall be provided near each entry point of a revolving door within 48 inches (1220 mm) of the door and between 24 inches (610 mm) and 48 inches (1220 mm) above the floor. The activation area of the emergency stop switch button shall be not less than 1 inch (25 mm) in diameter and shall be red.

~~4.~~6. Each revolving door shall have a side-hinged swinging door which complies with Section 1008.1 in the same wall and within 10 feet (3048 mm) of the revolving door.

~~5.~~7. Revolving doors shall not be part of an *accessible route* required by Section 1007 and Chapter 11.

~~**TABLE 1008.1.4.1 (IFC [B] TABLE 1008.1.4.1)**~~
~~**REVOLVING DOOR SPEEDS**~~

~~INSIDE DIAMETER (feet-inches)~~	~~POWER-DRIVEN-TYPE SPEED CONTROL (rpm)~~	~~MANUAL-TYPE SPEED CONTROL (rpm)~~
~~6-6~~	~~11~~	~~12~~
~~7-0~~	~~10~~	~~11~~
~~7-6~~	~~9~~	~~11~~
~~8-0~~	~~9~~	~~10~~
~~8-6~~	~~8~~	~~9~~
~~9-0~~	~~8~~	~~9~~
~~9-6~~	~~7~~	~~8~~
~~10-0~~	~~7~~	~~8~~

~~For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.~~

1008.1.4.1.1 (IFC [B] 1008.1.4.1.1) Egress component. A revolving door used as a component of a *means of egress* shall comply with Section 1008.1.4.1 and the following three conditions:

1. Revolving doors shall not be given credit for more than 50 percent of the required egress capacity.
2. Each revolving door shall be credited with no more than a 50-person capacity.
3. Each revolving door shall ~~be capable of being collapsed when a force of not more than 130 pounds (578 N) is applied within 3 inches (76 mm) of the outer edge of a wing~~ provide for egress in accordance with BHMA A156.27 with a *breakout* force of not more than 130 pounds.

1008.1.4.1.2 (IFC [B] 1008.1.4.1.2) Other than egress component. A revolving door used as other than a component of a *means of egress* shall comply with Section 1008.1.4.1. The ~~collapsing~~ *breakout* force of a revolving door not used as a component of a *means of egress* shall not be more than 180 pounds (801 N).

Exception: A ~~collapsing~~ *breakout* force in excess of 180 pounds (801 N) is permitted if the collapsing force is reduced to not more than 130 pounds (578 N) when at least one of the following conditions is satisfied:

1. There is a power failure or power is removed to the device holding the door wings in position.
2. There is an actuation of the *automatic sprinkler system* where such system is provided.
3. There is an actuation of a smoke detection system which is installed in accordance with Section 907 to provide coverage in areas within the building which are within 75 feet (22 860 mm) of the revolving doors.
4. There is an actuation of a manual control switch, in an *approved* location and clearly defined, which reduces the ~~holding~~ *breakout* force to ~~below the~~ not more than 130-pounds (578 N) ~~force level~~.

Add standard to Chapter 35 (IFC Chapter 80) as follows:

BHMA

A 156.27-11 Power and Manual Operated Revolving Pedestrian Doors

Reason: This proposal updates the requirements currently in the IBC for revolving doors and introduces the 2011 edition of BHMA A156.27 American National Standard for Power and Manual Operated Revolving Pedestrian Doors into the IBC.

Revolving doors currently being installed in commercial buildings range from 6 feet to 24 feet in diameter and include manually operated revolving doors and numerous types and sizes of automatic revolving doors (i.e. power operated revolving doors).

The latest edition of BHMA A156.27 includes in its scope a wide variety of manual and power operated revolving doors, many of which are not included within the scope of the current IBC requirements. The requirements in A156.27 include the maximum allowable door speed (RPM), based on type and size of revolving door, and ranges from maximum 12 RPM for the smallest manual revolving door to maximum 0.3 RPM for the largest power operated revolving door.

BHMA A156.27 includes requirements for egress including minimum egress width and maximum breakout force, and also includes requirements for signage, glazing, sensors, an emergency stop switch, and other criteria.

The existing Table 1008.1.4.1 is recommended to be deleted as there are five (5) expanded and updated tables in A156.27 addressing maximum allowable door speeds (RPM) for manually operated revolving doors and the various types and sizes of power operated revolving doors.

Cost Impact: Proposal updates IBC to current industry standards and practices resulting in no cost impact.

Analysis: A review of the standard proposed for inclusion in the code, BHMA A156.27-11 with regard to the ICC criteria for referenced standards (Section 3.6 of CP#28) will be posted on the ICC website on or before April 2, 2012.

E_-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.4.1-E-Woestman.doc

E57 – 12
202, 1008.1.4.2 (IFC [B] 202, 1008.1.4.2)

Proponent: John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA) (jwoestman@kellencompany.com)

Add the following definition:

SECTION 202
DEFINITIONS

LOW ENERGY POWER-OPERATED DOOR. Swinging door which open automatically upon an action by an pedestrian, such as pressing a push plate or waving a hand in front of a sensor. The door closes automatically, and operates with decreased forces and decreased speeds. See also POWER ASSISTED DOOR and POWER OPERATED DOOR.

POWER-OPERATED DOOR. Swinging, sliding, or folding door which open automatically when approached by a pedestrian or open automatically upon an action by an pedestrian. The door closes automatically, and include provisions such as presence sensors to prevent entrapment. See also LOW ENERGY POWER OPERATED DOOR and POWER ASSISTED DOOR.

POWER-ASSISTED DOOR. Swinging door which opens by reduced pushing or pulling force on the door operating hardware. The door closes automatically after the pushing or pulling force is released, and function with decreased forces. See also LOW ENERGY POWER OPERATED DOOR and POWER OPERATED DOOR.

Revise as follows:

1008.1.4.2 (IFC [B] 1008.1.4.2) Power-operated doors. Where *means of egress* doors are operated or assisted by power~~, such as doors with a photoelectric-actuated mechanism to open the door upon the approach of a person, or doors with power assisted manual operation,~~ the design shall be such that in the event of power failure, the door is capable of being opened manually to permit *means of egress* travel or closed where necessary to safeguard *means of egress*. The forces required to open these doors manually shall not exceed those specified in Section 1008.1.3, except that the force to set the door in motion shall not exceed 50 pounds (220 N). The door shall be capable of swinging open from any position to the full width of the opening in which such door is installed when a force is applied to the door on the side from which egress is made. ~~Full-p~~Power-operated swinging doors, power-operated sliding doors, and power-operated folding doors shall comply with BHMA A156.10. Power-assisted swinging doors and low energy power-operated swinging doors shall comply with BHMA A156.19.

Exceptions:

1. Occupancies in Group I-3.
2. Horizontal sliding doors complying with Section 1008.1.4.3.
3. For a biparting door in the emergency breakout mode, a door leaf located within a multiple-leaf opening shall be exempt from the minimum 32-inch (813 mm) single-leaf requirement of Section 1008.1.1, provided a minimum 32-inch (813 mm) clear opening is provided when the two biparting leaves meeting in the center are broken out.

Reason: This proposal is intended to clarify the IBC and while not revising the technical requirements of the code.

The proposed definitions and text revisions are intended to more closely align the IBC with the standards currently referenced in Section 1008.1.4.2.

The doors of Section 1008.1.4.2 are the various types of power-operated doors such as the doors installed at the entrances to buildings, and may be installed within these same buildings.

Cost Impact: None.

E_-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.4.2-E-Woestman.doc

E58 – 12
1008.1.5 (IFC [B] 1008.1.5)

Proponent: Eirene Oliphant, MCP, BRR Architecture, representing self

Revise as follows:

1008.1.5 (IFC [B] 1008.1.5) Floor elevation. There shall be a floor or landing on each side of a door. Such floor or landing shall be at the same elevation on each side of the door. Landings shall be level except for exterior landings, which are permitted to have a slope not to exceed 0.25 unit vertical in 12 units horizontal (2-percent slope).

Exceptions:

1. Doors serving individual dwelling units in Groups R-2 and R-3 where the following apply:
   1.1 A door is permitted to open at the top step of an interior flight of stairs, provided the door does not swing over the top step.
   1.2 Screen doors and storm doors are permitted to swing over stairs or landings.
2. Exterior doors as provided for in Section 1003.5, Exception 1, and Section 1020.2, which are not on an accessible route.
3. In Group R-3 occupancies not required to be Accessible units, Type A units or Type B units, the landing at an exterior doorway shall not be more than 73/4 inches (197 mm) below the top of the threshold, provided the door, other than an exterior storm or screen door, does not swing over the landing.
4. Variations in elevation due to differences in finish materials, but not more than 1/2 inch (12.7mm).
5. Exterior decks, patios or balconies that are part of Type B dwelling units, have impervious surfaces and that are not more than 4 inches (102 mm) below the finished floor level of the adjacent interior space of the dwelling unit.
6. <u>Doors serving equipment spaces not required to be accessible in accordance with Section 1103.2.9 shall be permitted to have the landings on both sides to be at different levels provided the elevation difference is not more than 7 inches (178 mm).</u>

Reason: This is language that was in the 1997 UBC. When designing facilities which utilize electrical equipment rooms that are prefabricated, allowing a change in elevation to exist at the doors serving these rooms gives the designer more flexibility. To meet the current code language would require the use of ramps for changes in elevations of approximately 7 inches. When a single step with a maximum riser of 7 inches is permitted for buildings with Groups F, H, R-2, r-3, S and U that are not required to be accessible, why cannot a single step serving a room that is not normally occupied be allowed to be used as well.

Cost Impact: The code change proposal will not increase the cost of construction.

E58-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.5-E-OLIPHANT

E59 – 12
1008.1.5 (IFC [B] 1008.1.5)

Proponent: David R. Scott, AIA, representing Target Corporation (David.Scott@Target.com)

Revise as follows:

1008.1.5 (IFC [B] 1008.1.5) Floor elevation. There shall be a floor or landing on each side of a door. Such floor or landing shall be at the same elevation on each side of the door. Landings shall be level except for exterior landings, which are permitted to have a slope not to exceed 0.25 unit vertical in 12 units horizontal (2-percent slope).

Exceptions:

1. Doors serving individual dwelling units in Groups R-2 and R-3 where the following apply:
   1.1 A door is permitted to open at the top step of an interior flight of stairs, provided the door does not swing over the top step.
   1.2 Screen doors and storm doors are permitted to swing over stairs or landings.
2. Exterior doors as provided for in Section 1003.5, Exception 1, and Section 1020.2, which are not on an accessible route.
3. In Group R-3 occupancies not required to be Accessible units, Type A units or Type B units, the landing at an exterior doorway shall not be more than 7 3/4 inches (197 mm) below the top of the threshold, provided the door, other than an exterior storm or screen door, does not swing over the landing.
4. Variations in elevation due to differences in finish materials, but not more than 1/2 inch (12.7 mm).
5. Exterior decks, patios or balconies that are part of Type B dwelling units, have impervious surfaces and that are not more than 4 inches (102 mm) below the finished floor level of the adjacent interior space of the dwelling unit.
6. <u>Doors serving equipment spaces not required to be accessible in accordance with Section 1103.2.9 and serving an occupant load of 5 or less shall be permitted to have the landings on both sides to be at different levels provided the elevation difference is not more than 7 inches (178 mm).</u>

Reason: Equipment spaces are utilized by personal familiar with the layout and function of such space. This would not constitute a hazard type situation stepping down from the equipment spaces.

Cost Impact: The code change proposal will not increase the cost of construction.

E59-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.5-E-Scott.doc

E60 – 12
1008.1.7 (IFC [B] 1008.1.7)

Proponent: Julie Ruth, P.E., JRuth Code Consulting, representing American Architectural Manufacturers Association (AAMA) (julruth@aol.com)

Revise as follows:

1008.1.7 (IFC [B] 1008.1.7) Thresholds. Thresholds at doorways shall not exceed ¾ inch in height above the finished floor or landing for sliding doors serving dwelling units or ½ inch above the finished floor or landing for other doors. Raised thresholds and floor level changes greater than ¼ inch at doorways shall be beveled with a slope not greater than one unit vertical in two units horizontal (50-percent slope).

~~Exception~~ Exceptions:

1. In occupancy Group R-2 or R-3, threshold heights for sliding and side-hinged exterior doors shall be permitted to be up to 7 ¾ inches in height if all of the following apply:
   1.1. The door is not part of the required means of egress.
   1.2. The door is not part of an accessible route as required by Chapter 11.
   1.3. The door is not part of an *Accessible unit, Type A unit* or *Type B unit*.
2. In Type B units, where Exception 5 to Section 1008.1.5 permits a 4-inch (102 mm) elevation change at the door, the threshold height on the exterior side of the door shall not exceed 4 ¾ (120 mm) inches in height above the exterior deck, patio or balcony for sliding doors or 4 1/2 inch (114 mm) above the exterior deck, patio or balcony for other doors.

Reason: Currently an exception to the threshold height provisions of Section 1008.1.7 exists for doors where a 7 ¾ inch step down is permitted by exception 3 to Section 1008.1.5. Specifically this is limited to exterior doors that are not part of the required means of egress, and which are not serving *Accessible units*, *Type A units* or *Type B units*.

This proposal adds a second exception for doors where a 4 inch step down is permitted between Type B dwelling units and exterior decks, patios and balconies by exception 5 to Section 1008.1.5. This proposal would permit the height of the threshold itself to exceed ½ or ¾ inch in height, as long as the resultant profile from the interior floor to the exterior surface is maintained as required by current code text.

The sketch below provides an example of the type of installation that would be permitted by this proposal. Specifically, the threshold itself is higher than ½ or ¾ inch. The additional height, however, is contained within the 4 inch step down that is permitted between the interior floor and the exterior surface for doors serving *Type B* dwelling units. The height of the threshold is limited to ½ inch or ¾ inch above the interior floor and shall not be more than 4 ½ or 4 ¾ inch above the exterior surface, depending upon the type of door. If the threshold is greater than ¼ inch above the interior floor it is to be beveled at a slope of 1 inch vertical to 2 inches horizontal (50% slope), as required by current text.

The higher threshold is needed to prevent water infiltration underneath the door into the dwelling unit. A threshold height of ¾ inch is only sufficient to resist water infiltration in areas of low wind and exceptionally low rainfall. Throughout most of the rest of the U.S. the potential for water to leak into interior spaces under conditions of high wind combined with heavy rain does exist with a door threshold of only ¾ inch in height. Along the gulf coast and eastern seaboard much higher thresholds of up to 2 ½ inches in height are needed to sufficiently resist water infiltration under extreme weather conditions.

These sills can be accommodated within the 4 inch step down permitted between *Type B* dwelling units and exterior decks, patios and balconies. Permitting this higher threshold facilitates compliance with Chapter 11. For example, Section 1107.6.2.1.2 requires every apartment in R-2 occupancies with more than 4 dwelling units to be *Type B* units. If a higher threshold is not permitted between exterior decks, balconies and patios that serve these units and the actual units themselves, throughout most of the country exterior decks, balconies and patios could not be installed in R-2 occupancies without creating a potential risk of serious water damage to the interior of the building under extreme weather conditions.

Cost Impact: None

E60-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

E1008.1.7-E-Ruth.doc

E61 – 12
1008.1.8 (IBC [F] 1008.1.8)

Proponent: Randall R. Dahmen, P.E. Wisconsin licensed Commercial Building Inspector, representing self

Revise as follows:

1008.1.8 (IFC [B] 1008.1.8) Door arrangement. Space between two doors in a series shall be 48 inches (1219 mm) minimum plus the width of a door swinging into the space. Doors in a series shall swing either in the same direction or away from the space between the doors.

Exceptions:

1. The minimum distance between horizontal sliding power-operated doors in a series shall be 48 inches (1219 mm).
2. Storm and screen doors serving individual dwelling units in Groups R-2 and R-3 need not be spaced 48 inches (1219 mm) from the other door.
3. Doors within individual dwelling units in Groups R-2 and R-3 other than within Type A dwelling units.
4. <u>Where doors in a series are elements of an accessible route, the space between the two doors shall be permitted to be spaced such that in the space between the doors a wheelchair space is provided beyond the swing of the door.</u>

Reason: The proposed exception provides recognition that not all doors are in alignment. In those situations where the two doors may be in series, but not necessarily aligned with a straight line path of egress, this exception would provide an acceptable approach.

Cost Impact: The code change proposal will not increase the cost of construction.

E61-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.8-E-Dahmen.doc

E62 – 12
1008.1.3, 1008.1.9.1 (IFC [B] 1008.1.3, 1008.1.9.1)

Proponent: John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA) (jwoestman@kellencompany.com)

Revise as follows:

1008.1.3 (IFC [B] 1008.1.3) Door opening force. The force for pushing or pulling open interior swinging egress doors, other than fire doors, shall not exceed 5 pounds (22 N). These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position. For other swinging doors, as well as sliding and folding doors, the door latch shall release when subjected to a 15-pound (67 N) force. The door shall be set in motion when subjected to a 30-pound (133 N) force. The door shall swing to a full open position when subjected to a 15-pound (67 N) force.

1008.1.9.1 (IFC [B] 1008.1.9.1) Hardware. Door handles, pulls, latches, locks and other operating devices on doors required to be *accessible* by Chapter 11 shall not require tight grasping, tight pinching or twisting of the wrist to operate and shall not require more than a 15-pound (67 N) force to unlatch.

Reason: The proposed language in Section 1008.1.3 is intended to clarify the IBC, and to be consistent with A117.1.

The sentence proposed for 1008.1.9.1 quantifies the maximum force allowable to operate door hardware to unlatch a door which is required to be accessible. Currently, the IBC is silent regarding this requirement. This maximum force is consistent with the maximum force allowed for panic hardware and fire exit hardware (IBC Section 1008.1.10.1) commonly installed on doors required to be accessible in the means of egress.

Cost Impact: None.

E62-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.1-E-Woestman.doc

E63 – 12
1008.1.9.3 (IFC [B] 1008.1.9.3)

Proponent: Lee J. Kranz, City of Bellevue, Washington, representing Washington Association of Building Officials Technical Code Development Committee (lkranz@bellevuewa.gov)

Revise as follows:

1008.1.9.3 (IFC [B] 1008.1.9.3) Locks and latches. Locks and latches shall be permitted to prevent operation of doors where any of the following exists:

1. Places of detention or restraint.
2. In buildings in occupancy Group A having an *occupant load* of 300 or less, Groups B, F, M and S, and in *places of religious worship*, the main ~~exterior~~ door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:
   - 2.1. The locking device is readily distinguishable as locked;
   - 2.2. A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN ~~BUILDING~~ <u>THIS TENANT SPACE</u> IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background; and
   - 2.3. The use of the key-operated locking device is revokable by the *building official* for due cause.
3. Where egress doors are used in pairs, *approved* automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware.
4. Doors from individual *dwelling* or *sleeping units* of Group R occupancies having an *occupant load* of 10 or less are permitted to be equipped with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool.
5. *Fire doors* after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.

Reasoning: The proposed change is consistent with an interpretation given by ICC staff that this condition is allowed to exist. The issue that this addresses is one where you have a restaurant door opening into a mall; the door to the mall could be the "main" exit but not be an "exterior" door.

Cost Impact: The code change proposal will not increase the cost of construction.

E63-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.3 #1-E-KRANZ

E64 – 12
1008.1.9.3 (IFC [B] 1008.1.9.3)

Proponent: Jeff Sprout, AIA, Target, representing Target Corporation (jeff.sprout@target.com)

Revise as follows:

1008.1.9.3 (IFC [B] 1008.1.9.3) Locks and latches. Locks and latches shall be permitted to prevent operation of doors where any of the following exists:

1. Places of detention or restraint.
2. In buildings in occupancy Group A having an *occupant load* of 300 or less, Groups B, F, M and S, and in *places of religious worship*, the main ~~exterior~~ door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:
   2.1. The locking device is readily distinguishable as locked;
   2.2 A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background; and

   Exception: Buildings shall not be considered "occupied" after business hours in multiple-exit buildings where employees, security and cleaning crews have access to other exits without requiring the use of a key or in small buildings with one exit.

   2.3. The use of the key-operated locking device is revokable by the *building official* for due cause.
3. Where egress doors are used in pairs, *approved* automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware.
4. Doors from individual *dwelling* or *sleeping units* of Group R occupancies having an *occupant load* of 10 or less are permitted to be equipped with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool.
5. *Fire doors* after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.

Reason: Provide clarification to the intent of the required signage in that it does not pertain to "after business hours" when employees, security and cleaning crews have access to other exits without requiring the use of a key or to small building that require only one exit. The above statement is supported by the code commentary as provided for Exception 2.

Cost Impact: The code change proposal will not increase the cost of construction.

E64-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.3-E-SPROUT

E65 – 12
1008.1.9.3 (IFC [B] 1008.1.9.3)

Proponent: Lee J. Kranz, City of Bellevue, Washington, representing Washington Association of Building Officials Technical Code Development Committee (lkranz@bellevuewa.gov)

Revise as follows:

1008.1.9.3 (IFC [B] 1008.1.9.3) Locks and latches. Locks and latches shall be permitted to prevent operation of doors where any of the following exists:

1. Places of detention or restraint.
2. In buildings in occupancy Group A having an *occupant load* of 300 or less, Groups B, F, M and S, and in *places of religious worship*, the main exterior door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:
   - 2.1. The locking device is readily distinguishable as locked;
   - 2.2. A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background; and
   - 2.3. The use of the key-operated locking device is revokable by the *building official* for due cause.
3. Where egress doors are used in pairs, *approved* automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware.
4. Doors from individual *dwelling* or *sleeping units* of Group R occupancies having an *occupant load* of 10 or less are permitted to be equipped with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool.
5. *Fire doors* after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.
6. Where occupants must re-enter the building for egress purposes, doors serving outdoor areas of Group R-3 occupancies and individual sleeping units or dwelling units of Group R-2 occupancies with an occupant load of 10 or less are permitted to be equipped with locks or latches provided such devices are openable from the inside without the use of a key or special knowledge or effort.
7. Egress doors serving outdoor areas having an occupant load of 300 or less where single or multiple paths of egress travel from the outdoor area are required to pass through the building are permitted to be equipped with locks or latches provided
   - 7.1 The locking device is readily distinguishable as locked on the interior side.
   - 7.2 A readily visible durable sign is posted on the interior side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN THE OUTDOOR AREA IS OCCUPIED. The sign shall be in letters 1 inch high on a contrasting background
   - 7.3 The use of the key-operated locking device is revocable by the building official for due cause.

Reasoning:

Item #6: Currently there are no provision in the code that allow locks or latches to be installed on doors serving outdoor areas of R-3 or R-2 sleeping units or dwelling units where the occupants must re-enter the building for egress purposes. Exception #2 of IBC Section 1004.5 is unclear in this regard. It is common practice to install locks or latches on exterior doors serving these outdoor areas to maintain security. Occupant loads exceeding 10 persons would not be allowed to use the provision, similar to item #4 of this section.

Item #7: Currently egress doors serving outdoor areas, where single or multiple paths of egress travel are required to pass through the building, are not permitted to have locks or latches. For security purposes, building owners or tenants typically install locks on required egress doors from these areas. When occupants must re-enter the building, as is typical for elevated decks where an exterior stair from the deck is impractical, IBC Section 1004.5 requires an unobstructed path of egress from these outdoor areas, similar to any occupied room in the building.

The sketch below illustrates this situation. The deck shown is on the 4th floor of the building. The installation of an exterior stairway is not practical. The owner wants to lock the doors for security purposes but this is a problem because, per IBC Section 1004.5, occupants must be able to egress from the deck at any time.

Cost Impact: The code change proposal will increase the cost of construction. This is due to the cost of installing a sign above the door and a locking device which is distinguishable as "locked".

E65-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.3 #2-E-KRANZ

E66-12
1008.1.9.6 (IFC [B] 1008.1.9.6)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1008.1.9.6 (IFC [B] 1008.1.9.6) Special locking arrangements in doors in ~~Group~~ Groups I-1 assisted living facilities and I-2. Approved, special egress locks shall be permitted in a Group I-1 assisted living facilities or I-2 ~~occupancy~~ occupancies where the clinical needs of persons receiving care require such locking. Special egress locks shall be permitted in such occupancies where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic-smoke or heat detection system installed in accordance with Section 907, provided that the doors are installed and operate in accordance with Items 1 through 7 below.

1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall have the capability of being unlocked by a signal from the fire command center, a nursing station or other approved location.
4. A building occupant shall not be required to pass through more than one door equipped with a special egress lock before entering an exit.
5. The procedures for the operation(s) of the unlocking system shall be described and approved as part of the emergency planning and preparedness required by Chapter 4 of the International Fire Code.
6. All clinical staff shall have the keys, codes or other means necessary to operate the locking devices.
7. Emergency lighting shall be provided at the door.

Exception: Items 1 through 4 shall not apply to doors to areas where persons which because of clinical needs require restraint or containment as part of the function of a psychiatric treatment area.

Reason: The current text allows special provisions in the path of egress for Group I-2 when patient care, most often due to issues of elopement, allows for staff to control access to the exits. This allowance should be permitted in assisted living facilities in order to allow proper care for residents in the initial stages of Alzheimer's, therefore, this allowance needs to be extended to Group I-1 assisted living facilities.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: Increase

E66-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.6-E-BALDASSARRA-CTC.docx

E67-12
1008.1.9.6 (IFC [B] 1008.1.9.6)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1008.1.9.6 (IFC [B] 1008.1.9.6) ~~Special~~ Controlled egress ~~locking arrangements in~~ doors in Group I-2. ~~Approved,~~ Electric ~~special egress~~ locks, including electro-mechanical locks and electromagnetic locks, shall be permitted to be locked in the means of egress in a Group I-2 occupancy where the clinical needs of persons receiving care require their containment. ~~such locking.~~ ~~Special egress~~ ~~locks~~ Controlled egress doors shall be permitted in such occupancies where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic-smoke or heat detection system installed in accordance with Section 907, provided that the doors are installed and operate in accordance with Items 1 through ~~7~~ 8 below.

1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall have the capability of being unlocked by a switch that directly breaks power to the lock, located ~~signal from~~ at the fire command center, a nursing station or other approved location.
4. A building occupant shall not be required to pass through more than one door equipped with a ~~special~~ controlled egress lock before entering an exit.
5. The procedures for the ~~operation(s) of the~~ unlocking ~~system~~ of the doors shall be described and approved as part of the emergency planning and preparedness required by Chapter 4 of the International Fire Code.
6. All clinical staff shall have the keys, codes or other means necessary to operate the locking devices.
7. Emergency lighting shall be provided at the door.
8. All components of the door locking system shall be listed in accordance with UL 294.

Exception: Items 1 through 4 shall not apply to doors to areas where persons which because of clinical needs require restraint or containment as part of the function of a psychiatric treatment area.

Reason: This section deals with the use of electric locks to enhance the capabilities of egress control. Egress control serves three primary purposes. These are to control the elopement of ambulatory patients not capable of self preservation; the containment of patients that, due to their mental condition, could do harm to others; the prevention of the abduction of babies and children. Exceptions allow for the use of listed child abduction security systems and even mechanical locks (non-electric.)

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E67-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.6#2-E-WILLIAMS-ADHOC.doc

E68 – 12
1008.1.9.6 (IFC [B] 1008.1.9.6)

Proponent: John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA) (jwoestman@kellencompany.com)

Revise as follows:

1008.1.9.6 (IFC [B] 1008.1.9.6) ~~Special locking arrangements~~ Controlled egress doors in Group I-2. ~~*Approved* special egress~~ Electric locks including electro-mechanical locks and electromagnetic locks shall be permitted to be locked in the means of egress in a Group I-2 occupancy where the clinical needs of persons receiving care require their containment. ~~such locking. Special egress locks~~ Controlled egress doors shall be permitted in such occupancies where the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved* automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors are installed and operate in accordance with Items 1 through ~~7~~8.

1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall be installed to have the capability of being unlocked by a ~~signal from~~ switch located at the *fire command center*, a nursing station or other *approved* location. The switch shall directly break power to the lock.
4. A building occupant shall not be required to pass through more than one door equipped with a ~~special~~ controlled egress lock before entering an *exit*.
5. The procedures for the ~~operation(s) of the~~ unlocking of the doors ~~system~~ shall be described and *approved* as part of the emergency planning and preparedness required by Chapter 4 of the *International Fire Code*.
6. All clinical staff shall have the keys, codes or other means necessary to operate the locking devices.
7. Emergency lighting shall be provided at the door.
8. The components of the door locking system shall be listed in accordance with UL 294.

Exception: Items 1 through 4 shall not apply to doors to areas where persons, which because of clinical needs, require restraint or containment as part of the function of a psychiatric treatment area.

Reason: Changes above illustrate BHMA's suggested revisions from the 2012 IBC incorporating the ICC AHC MOE work group's proposed revisions, and further BHMA revisions. Further revisions are recommended to Items 3 and 8. The further revisions are essentially editorial or help to clarify the intent.

Background: the Builders Hardware Manufacturers Association (BHMA) members have been observing the AHC and CTC meetings and activities with most interest in the potential code proposals that may have implications to the means of egress, and to doors and door hardware requirements.

The BHMA Codes and Government Affairs (CGA) committee met immediately after the Orlando ICC AHC meeting for a final look-see at the proposed AHC language. Many of the BHMA CGA members had reviewed the draft AHC MOE language individually without identifying concern or opportunities for improvement. But when together in Orlando, the BHMA members identified several opportunities for further revision to the AHC proposals.

We've captured our suggestions for additional considerations in this proposal. We're not wanting to circumvent the work of the AHC and CTC; that's why several of us have been attending the AHC and CTC meetings and phone calls. We just did not recognize some of the opportunities while reviewing the language individually, and only when the BHMA CGA committee got together for – what we thought would be – a quick final review, did we realize several concerns and opportunities for revisions.

Cost Impact: None.

E68-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.6-E-Woestman.doc

E69-12
1008.1.9.6 (IFC [B] 1008.1.9.6)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1008.1.9.6 (IFC [B] 1008.1.9.6) Special locking arrangements in Group I-2. Approved, special egress locks shall be permitted in a Group I-2 occupancy where the clinical needs of persons receiving care require such locking. Special egress locks shall be permitted in such occupancies where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors are installed and operate in accordance with Items 1 through 7 below.

1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall have the capability of being unlocked by a signal from the fire command center, a nursing station or other approved location.
4. A building occupant shall not be required to pass through more than one door equipped with a special egress lock before entering an exit.
5. The procedures for the operation(s) of the unlocking system shall be described and approved as part of the emergency planning and preparedness required by Chapter 4 of the International Fire Code.
6. All clinical staff shall have the keys, codes or other means necessary to operate the locking devices.
7. Emergency lighting shall be provided at the door.

~~Exception~~ Exceptions:

1. Items 1 through 4 shall not apply to doors to areas where persons which because of clinical needs require restraint or containment as part of the function of a ~~psychiatric~~ treatment area.
2. Items 1 through 4 shall not apply to doors to areas where a listed egress control system is utilized to reduce the risk of child abduction.

Reason: This section deals with the use of electric locks to enhance the capabilities of egress control. Egress control serves three primary purposes. These are to control the elopement of ambulatory patients not capable of self preservation; the containment of patients that, due to their mental condition, could do harm to others; the prevention of the abduction of babies and children. Exceptions allow for the use of listed child abduction security systems and even mechanical locks (non-electric.)

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E69-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.6#1-E-WILLIAMS-ADHOC.doc

E70-12
1008.1.9.7 (IFC [B] 1008.1.9.7)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1008.1.9.7 (IFC [B] 1008.1.9.7) Delayed egress ~~locks~~. ~~*Approved, listed*,~~ Delayed egress ~~locks~~ locking systems, shall be permitted to be installed on doors serving any occupancy except Group A, E, and H occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved* automatic smoke or heat detection system installed in accordance with Section 907~~,~~. The locking system shall allow immediate free egress and shall be installed and operated ~~provided that the doors unlock~~ in accordance with Items 1 through ~~6~~ 7 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an *exit.*

1. The delay electronics shall deactivate ~~doors unlock~~ upon actuation of the *automatic sprinkler system* or automatic fire detection system, allowing immediate, free egress.
2. The ~~doors unlock~~ delay electronics shall deactivate upon loss of power controlling the lock or lock mechanism, allowing immediate free egress.
3. The ~~door locks~~ delay electronics shall have the capability of being ~~unlocked by a signal from~~ deactivated at the fire command center and other approved locations.
4. An attempt to egress ~~The initiation~~ ~~of~~ shall initiate an irreversible process which ~~will release the~~ shall allow such egress in not more than 15 seconds when a ~~force of not more than 15 pounds (67 N)~~ physical effort to exit is applied to the egress side door hardware for *not more than ~~1~~ 3 ~~second~~ seconds* ~~to the release device~~. The effort to open the door shall not require a force greater than 30 pounds (133N). Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the delay electronics ~~door lock~~ ~~has~~ have been ~~released~~ deactivated, ~~by the application of force to the releasing~~ ~~device~~, ~~relocking~~ rearming the delay electronics shall be by manual means only.

   Exception: Where approved, a delay of not more than 30 seconds is permitted on a delayed egress door.

5. A sign shall be provided on the door located above and within 12 inches (305mm) of the ~~release device~~ door exit hardware reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 (30) SECONDS. The sign shall comply with the visual character requirements in ICC A117.1.
6. Emergency lighting shall be provided ~~at~~ on the egress side of the door.
7. All components of the door locking system shall be listed in accordance with UL 294.

Reason: The intent of this proposal is to clarify the delayed egress locking system requirements. The intent is for all proposals for Section 1008.1.9.7 to work together. Three changes are submitted in order to keep the discussions separate.

The term "delayed egress lock" is proposed to be changed to "delayed egress locking system." Delayed egress always requires a system of electronic devices that work together to perform the delayed egress task. Sometimes they are contained within an electromagnetic lock or a bar and sometimes they are separate components, but they are never just a lock.

The term 'unlock" is proposed to change to "allow immediate free egress." Immediate free egress can be accomplished without unlocking the door. Merchants, offices and health care facilities are hesitant to use delayed egress because an "after hours" egress event will leave their building unlocked. Addressing the "delay" as a separate issue from "locked", this modification will allow the door to relock FROM THE OUTSIDE after a delayed egress event, but change the operation of the door to free egress until the system is manually reset. The intent of the code is not to keep people out. Instead, it is to let them out.

In Item 4 it is proposed to change the delay from one second to three seconds. One second is not enough time for a fully cognizant person to recognize that their action is what is causing the alarm and decide to abort the exit attempt. Dementia patients tend to wander toward doors when not otherwise engaged. Since staffing cannot be 1:1, it means that the nurses are attending other issues. Reducing these "nuisance" alarm issues can greatly reduce the need to drop everything and go check and reset the door.

In Item 4 it is proposed to make the force requirement consistent with Section 1008.1.3. There are three ways to initiate a delay sequence that are in common use, today. The code has never been changed to accommodate two of these. The original one,

an electromagnetic lock with delay electronics and a switch built into the case, is not addressed. It allows the use of existing door hardware and should be used with exit only applications. Otherwise, it can be triggered from both sides. The second means of delay initiation includes switches in cylindrical and mortise locks that begin the sequence when the inside lever is turned. This method has become possible with the ADA changes made to these locks to accommodate levers. The third method is the one the code seems to reference. It uses a switch bar (aka active dummy with switch), a panic bar with a switch, or fire-exit hardware with a switch. Depending on the manufacturer and the model number, the switch may either signal an external delay timer that controls an electromagnetic lock or signal a self-contained delayed egress system that controls a latch.

In Item 5 it is proposed to require a contrasting color for signage. Manufacturers typically supply the sign with their product, but often the sign blends in with the color of the door. The reference to ICC A117.1 visual requirements would not require engraved letters or Braille, but would require readable text, with good finish and contrast.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as “areas of study”. Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E70-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.7#2-E-WILLIAMS-ADHOC.doc

E71 – 12
1008.1.9.7 (IFC [B] 1008.1.9.7)

Proponent: John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA) (jwoestman@kellencompany.com)

Revise as follows:

1008.1.9.7 (IFC [B] 1008.1.9.7) Delayed egress locks. ~~*Approved, listed*,~~ Delayed egress ~~locks~~ locking systems, shall be permitted to be installed on doors serving any occupancy except Group A, E and H occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved* automatic smoke or heat detection system installed in accordance with Section 907~~,~~. The locking system shall be installed and operated ~~provided that the doors unlock~~ in accordance with Items 1 through ~~6~~7 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an *exit*.

1. The delay electronics shall deactivate ~~doors unlock~~ upon actuation of the *automatic sprinkler system* or automatic fire detection system, allowing immediate, free egress.
2. The ~~doors unlock~~ delay electronics shall deactivate upon loss of power controlling the lock or lock mechanism, allowing immediate free egress.
3. The ~~door locks~~ delay electronics shall have the capability of being ~~unlocked by a signal from~~ deactivated at the fire command center and other approved locations.
4. ~~The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for 1 second to the release device.~~ A force of not more 15 pounds applied to the egress side release device for not more than 3 seconds shall initiate an irreversible process which shall allow egress in not more than 15 seconds. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. The door shall be set in motion when subjected to a force of not more than 30 pounds (133 N). The door shall be able to swing to a full open position when subjected to a force of not more than 15 pounds (67 N). ~~Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only.~~ Once the delay electronics have been deactivated, rearming the delay electronics shall be by manual means only.

   Exception: Where *approved*, a delay of not more than 30 seconds is permitted.

5. A sign shall be provided on the door located above and within 12 inches (305 mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.
6. Emergency lighting shall be provided at the door.
7. The components of the door locking system shall be listed in accordance with UL 294.

Reason: Changes above illustrate BHMA's suggested revisions from the 2012 IBC incorporating the ICC AHC MOE work group's proposed revisions, and further BHMA revisions. Additional revisions are suggested to the main paragraph, Item 4 and Item 7.

Item 4 will benefit from a clarification of where and how the maximum 15 pound force is applied to initiate the delay "count down". Also in Item 4, the maximum force allowed to set the door in motion, and to swing to the full open position, comes from Section 1008.1.3. The other revisions are essentially editorial or help to clarify the intent.

Background: the Builders Hardware Manufacturers Association (BHMA) members have been observing the AHC and CTC meetings and activities with most interest in the potential code proposals that may have implications to the means of egress, and to doors and door hardware requirements.

The BHMA Codes and Government Affairs (CGA) committee met immediately after the Orlando AHC meeting for a final look-see at the proposed AHC language. Many of the BHMA CGA members had reviewed the draft AHC MOE language individually without identifying concern or opportunities for improvement. But when together in Orlando, the BHMA members identified several opportunities for further revision to the AHC proposals.

We've captured our suggestions for additional considerations in this proposal. We're not wanting to circumvent the work of the AHC and CTC; that's why several of us have been attending the AHC and CTC meetings and phone calls. We just did not recognize some of the opportunities while reviewing the language individually, and only when the BHMA CGA committee got together for – what we thought would be – a quick final review, did we realize several concerns and opportunities for revisions.

Cost Impact: None.

E71-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.7 #1-E-Woestman.doc

E72-12
1008.1.9.7 (IFC [B] 1008.1.9.7)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1008.1.9.7 (IFC [B] 1008.1.9.7) Delayed egress ~~locks~~. *Approved, listed*, delayed egress ~~locks~~ locking systems, shall be permitted to be installed on doors serving any occupancy except Group A, E, and H occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved* automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through ~~6~~ 7 below. ~~A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an *exit*.~~

1. The doors unlock upon actuation of the *automatic sprinkler system* or automatic fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall have the capability of being unlocked by a signal from the fire command center.
4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for *1 second* to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only.

   Exception: Where approved, a delay of not more than 30 seconds is permitted on a delayed egress door.

5. The egress path from any point shall pass through no more than one delayed egress door.

   Exception: In Group I-2 or I-3 occupancies, the egress path from any point in the building shall be permitted to pass through no more than two delayed egress doors provided the combined delay does not exceed 30 seconds.

6. A sign shall be provided on the door located above and within 12 inches (305mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 (30) SECONDS.
7. Emergency lighting shall be provided at the door.

Reason: This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

The intent is for both proposals for Section 1008.1.9.7 to work together. Two changes are submitted in order to keep the discussions separate.

Since delayed egress was developed in two separate theaters for two separate reasons, pilfering was a reason that is perfect for *one* 15 second delay. Back then, sprinkler requirements were not like they are today. On the other hand, delayed egress for health care in a fully sprinklered facility should be recognized as being different. A delay of thirty seconds is appropriate for this situation and so should two 15 second delays when used for good purpose, as they delay the person for no more time and often for less time. Following are two good purposes:

1. Property, especially in cities, is at a premium in both price and availability. For this reason, we see more and more two and three story ambulatory health care facilities as a result of needing to build up instead of out. This comes with a need to keep Alzheimer's disease and Head Injury patients on the floor **and** in the building. Currently, the facility is tasked with having to make a dangerous and unnecessary choice.
2. Most large (60+) single story dementia facilities have a perimeter fence surrounding the back and sides of the building. All exits except the front door are into a protected yard. The front door controls entry into the office/lobby area and reception. It is a small area requiring only the front door as an exit. A second door leading from the front office area into the core of the facility keeps the residents from eloping and strangers from entering. Originally, this door was not an exit and the facility side of the door was disguised as a wall so residents (patients) would not try to get out. Since it was not an exit, a delayed egress system was placed on that door and another one on the front door. Keypads were on both sides and both systems would unlock upon activation of the fire alarm. It was a mantrap designed so that if the lobby to core door went into alarm, the front door would instantly become delayed egress. Pursuant to the "discovery" and subsequent enforcement of the idea that if people exit the way they entered, the lobby to core door was an exit, should not be disguised and the front door could no longer be delayed. Without exceptions for those with health issues, the patients were now less safe than before. Allowing two 15 second delays would return them to a safe environment. This reasoning could also be applied toward doors leading into a common lobby with a stair tower door. The stair tower door would be free egress unless someone had triggered the ward delay in an attempt to elope from the ward. This would set off the alarm and arm the stair tower door's delayed egress system.

Cost Impact: None

E72-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.7#3-E-WILLIAMS-ADHOC.doc

E73 – 12
1008.1.9.7 (IFC [B] 1008.1.9.7)

Proponent: Dave Frable, U.S General Services Administration, Public Buildings Service, representing U.S. General Services Administration, Public Buildings Service

Revise as follows:

1008.1.9.7 (IFC [B] 1008.1.9.7) Delayed egress locks. *Approved, listed*, delayed egress locks shall be permitted to be installed on doors serving any occupancy except Group A, E and H occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved* automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through 6 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an *exit*.

1. The doors unlock upon actuation of the *automatic sprinkler system* or automatic fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall have the capability of being unlocked by a signal from the fire command center.
4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for 1 second to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only.

   Exception: Where *approved*, a delay of not more than 30 seconds is permitted.

5. A sign shall be provided on the door located above and within 12 inches (305 mm) of the release device~~. reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30]SECONDS~~.
   5.1. For doors that swing in the direction of egress, the sign shall read: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.
   5.2. For doors that swing in the opposite direction of egress, the sign shall read: PULL UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.
6. Emergency lighting shall be provided at the door.

Reason: The intent of this code change proposal is to acknowledge an UL listed delayed egress hardware that can be used on doors that swing in the opposite direction of egress, whereby pulling on the hardware engages the 15 or 30 second timer. As such, the subject signage requirements need to be revised to accommodate where such hardware is to be installed. Note: although most delayed egress hardware is installed on doors that swing in the direction of egress, there is no language currently in this section that actually prohibits installing delayed egress hardware on doors that swing in the opposite direction, unless one uses existing language for the signage as a means for prohibiting its use.

Cost Impact: This code change will not increase the cost of construction.

E73-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.7-E-Frable.doc

E74-12
1008.1.9.7 (IFC [B] 1008.1.9.7)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1008.1.9.7 (IFC [B] 1008.1.9.7) Delayed egress locks. *Approved, listed*, delayed egress ~~locks~~ locking systems, shall be permitted to be installed on doors serving any occupancy except Group A, E, and H occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved* automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through 6 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an *exit.*

1. The doors unlock upon actuation of the *automatic sprinkler system* or automatic fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall have the capability of being unlocked by a signal from the fire command center.
4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for *1 second* to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released, by the application of force to the releasing device, relocking rearming shall be by manual means only.

   Exception: Where approved, a delay of not more than 30 seconds is permitted on a delayed egress door.

5. A sign shall be provided on the door located above and within 12 inches (305mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 (30) SECONDS.

   Exception: Where approved, the installation of a sign is not required when it interferes with the safety of the residents in Group I occupancies.

6. Emergency lighting shall be provided at the door.

Reason: The intent is for all proposals for Section 1008.1.9.7 to work together. Three changes are submitted in order to keep the discussions separate.

The new exception to Item 5 - Providing escape instructions to first stage Alzheimer's disease patients who often still can read is unwise. Staff is there to assist in a fire.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E74-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.7#1-E-WILLIAMS-ADHOC.doc

E75 – 12
1008.1.9.7 (IFC [B] 1008.1.9.7)

Proponent: John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA) (jwoestman@kellencompany.com)

Revise as follows:

1008.1.9.7 (IFC [B] 1008.1.9.7) Delayed egress locks. *Approved, listed*, delayed egress ~~locks~~ locking systems, shall be permitted to be installed on doors serving any occupancy except Group A, E, and H occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved* automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through 6 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an *exit.*

1. The doors unlock upon actuation of the *automatic sprinkler system* or automatic fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall have the capability of being unlocked by a signal from the fire command center.
4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for *1 second* to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released, by the application of force to the releasing device, relocking rearming shall be by manual means only.

   Exception: Where approved, a delay of not more than 30 seconds is permitted on a delayed egress door.

5. A sign shall be provided on the door located above and within 12 inches (305mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 (30) SECONDS.

   Exception: Where approved, the installation of a sign is not required when the instructions compromise the safety of the residents in Group I occupancies.

6. Emergency lighting shall be provided at the door.

Reason: Changes above illustrate BHMA's suggested revisions from the 2012 IBC incorporating the ICC AHC MOE work group's proposed revisions, and further BHMA revisions. The further proposed revisions are essentially editorial and help to clarify the intent.

Background: the Builders Hardware Manufacturers Association (BHMA) members have been observing the AHC and CTC meetings and activities with most interest in the potential code proposals that may have implications to the means of egress, and to doors and door hardware requirements.

The BHMA Codes and Government Affairs (CGA) committee met immediately after the Orlando AHC meeting for a final look-see at the proposed AHC language. Many of the BHMA CGA members had reviewed the draft AHC MOE language individually without identifying concern or opportunities for improvement. But when together in Orlando, the BHMA members identified several opportunities for further revision to the AHC proposals.

We've captured our suggestions for additional considerations in this proposal. We're not wanting to circumvent the work of the AHC and CTC; that's why several of us have been attending the AHC and CTC meetings and phone calls. We just did not recognize some of the opportunities while reviewing the language individually, and only when the BHMA CGA committee got together for – what we thought would be – a quick final review, did we realize several concerns and opportunities for revisions.

Cost Impact: None.

E75-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.7 #2-E-Woestman.doc

E76 – 12
1008.1.9.7(New) [IFC [B] 1008.1.9.7(New)]

Proponent: Bryan M Romney, Building Official, University of Utah, Salt Lake City, Utah, representing self

Add new text as follows:

1008.1.9.7 (IFC [B] 1008.1.9.7) Security locking arrangements. Approved special security egress locking systems shall be permitted on Group A occupancies including, but not limited to, museums, art galleries, special collections libraries and courtrooms; and Group B or M occupancies; for doors in the means of egress serving rooms or spaces where security needs of persons or building contents required such locking. Special egress locks shall be permitted in these occupancies where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors are installed and operate in accordance with all of the following:

1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall have the capability of being unlocked by a signal from an approved location that is constantly attended when the building is occupied.
4. Doors equipped with a security locking arrangement are monitored by either direct line of sight or remote monitoring from the constantly attended station.
5. A building occupant shall not be required to pass through more than one door equipped with a special security egress locking system before entering an exit.
6. The procedures for the operation of the special security egress locking system shall be described and approved as part of the emergency planning and preparedness required by Chapter 4 of the International Fire Code.
7. All security staff or persons identified in the procedures for Item 6 shall have the keys, codes, or other means necessary to operate the locking devices.
8. Emergency lighting shall be provided at the door.

(Renumber subsequent sections)

Reason: Chapter 10 does not provide a method for special locking or controlled egress except for Group I-1 and I-3 Occupancies. Other occupancy groups have needs for special locking arrangements either for securing persons or building contents. Examples include courtrooms where people poising a flight risk need special secure egress considerations. Research labs and animal housing facilities frequently require controlled egress systems such as card of biometric ingress and egress control systems. Libraries with rare book collections, art galleries, museums or mercantile occupancies where building contents area at risk of being stolen have needs for special security egress locking systems. This code addition would permit the code official to approve special locking arrangements in other occupancy groups where a demonstrated need exists. The procedure by which the special locking arrangement functions is to be reviewed and approved by the code official as outlined in Item 6. This item would allow the code official to approve special security egress locking systems under prescriptive requirement of Chapter 10 without having to approve an alternate design or method outlined in Section 104.11. This code addition represents a significantly more defensible code provisions than the more interpretive alternative design route. This code addition allows an already existing code provisions for controlled egress doors in Group I-2 occupancies to be allowed for other occupancy groups where a demonstrated need exists. No new or unproven code protocol is created in this code addition, only an existing, proven, and verified provision is being extended to other occupancy groups which for years have had critically security needs not allowed by the code.

Cost Impact: No initial construction cost impact. The IFC may require ongoing inspections of the Chapter 4 emergency planning and preparedness protocol compliance.

E76-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.7-E-ROMNEY.doc

E77-12
1008.1.9.8, 1008.1.9.9 (IFC [B] 1008.1.9.8, 1008.1.9.9)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1008.1.9.8 (IFC [B] 1008.1.9.8) Access controlled egress doors. The entrance doors in a means of egress in buildings with an occupancy in Groups A, B, E, I-1, I-2, I-4, M, R-1 or R-2 and entrance doors to tenant spaces in occupancies in groups A, B, E, I-1, I-2, I-4, M, R-1 or R-2 are permitted to be equipped with an approved entrance and egress access control system, listed in accordance with UL 294, which shall be installed in accordance with all of the following criteria:

1. A sensor shall be provided on the egress side arranged to detect an occupant approaching the doors. The doors shall be arranged to unlock by a signal from or loss of power to the sensor.
2. Loss of power to that the part of the access control system which locks the doors shall automatically unlock the doors.
3. The doors shall be arranged to unlock from a manual unlocking device located 40 inches to 48 inches (1016mm to 1219mm) vertically above the floor and within 5 feet (1524mm) of the secured doors. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads "PUSH TO EXIT." When operated, the manual unlocking device shall result in direct interruption of power to the lock—independent of the access control system electronics—and the doors shall remain unlocked for a minimum of 30 seconds.
4. Activation of the building fire alarm system, if provided, shall automatically unlock the doors, and the doors shall remain unlocked until the fire alarm system has been reset.
5. Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the doors. The doors shall remain unlocked until the fire alarm system has been reset.
6. Entrance doors in buildings with an occupancy in Group A, B, E, or M shall not be secured from the egress side during periods that the building is open to the general public.

1008.1.9.9 (IFC [B] 1008.1.9.9) Electromagnetically locked egress doors. Doors in the *means of egress* in buildings with an occupancy in Group A, B, E, I-1, I-2, I-4, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, I-1, I-2, I-4, M, R-1 or R-2 shall be permitted to be electromagnetically locked if equipped with listed hardware that incorporates a built-in switch and meets the requirements below:

1. The listed hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
2. The listed hardware is capable of being operated with one hand.
3. Operation of the listed hardware directly interrupts the power to the electromagnetic lock and unlocks the door immediately.
4. Loss of power to the listed hardware automatically unlocks the door.
5. Where panic or *fire exit hardware* is required by Section 1008.1.10, operation of the listed panic or *fire exit hardware* also releases the electromagnetic lock.

Reason: Group I-1 and I-2 include patients where they may be a concern for elopement. In day care, there is the concern of children perhaps leaving the facility. These types of systems allow for some control, while at the same time allowing free egress during an emergency.

If the correlative change for Group R-4, Condition 1 and Condition 2 is successful, a public comment regarding the application of these types of locking arrangements may be submitted.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: Increase

E77-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.8-E-BALDASSARRA-CTC.docx

E78-12
1008.1.9.8 (IFC [B] 1008.1.9.8)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1008.1.9.8 (IFC [B] 1008.1.9.8) ~~Access controlled~~ Motion sensor release of electromagnetically locked egress doors. Electromagnetically locked ~~The entrance~~ doors located in a means of egress in buildings with an occupancy in Groups A, B, E, I-2, M, R-1 or R-2 and entrance doors to tenant spaces in occupancies in groups A, B, E, I-2, M, R-1 or R-2 are permitted ~~to be equipped with an approved entrance and egress access control system, listed in accordance with UL 294,~~ ~~which shall be~~ where installed and operated in accordance with all of the following criteria:

1. A motion sensor shall be provided on the egress side arranged to detect an occupant approaching the doors. The doors shall be arranged to unlock by a signal from or loss of power to the sensor.
2. Loss of power to ~~that~~ the lock ~~part of the access control system which locks the doors~~ shall automatically unlock the doors.
3. The doors shall be arranged to unlock from a manual unlocking device located 40 inches to 48 inches (1016mm to 1219mm) vertically above the floor and within 5 feet (1524mm) of the secured doors. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads "PUSH TO EXIT." When operated, the manual unlocking device shall result in direct interruption of power to the lock—independent of ~~the access control system~~ other electronics—and the doors shall remain unlocked for a minimum of 30 seconds.
4. Activation of the building fire alarm system, if provided, shall automatically unlock the doors, and the doors shall remain unlocked until the fire alarm system has been reset.
5. Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the doors. The doors shall remain unlocked until the fire alarm system has been reset.
6. Entrance doors in buildings with an occupancy in Group A, B, E, or M shall ~~not be secured from the~~ always allow immediate free egress ~~side~~ during periods that the building is open to the general public.
7. All components of the door locking system shall be listed in accordance with UL 294.

Reason: This code was originally proposed to NFPA, UBC/UFC, and BOCA as an **alternative** way to release electromagnetic locks. It came from Washington, D.C. security contractors in the early 1980s when faced with installing electromagnetic locks on hundreds of all glass doors on defense contractors' facilities. There was no way to install bars with switches and no way to conceal the wiring. The title, Access Controlled Egress Doors, **meant** that access to free egress was controlled. It had nothing to do with the (then) new *electronic access control systems.*

The code addressed fire safety by taking aspects of devices not allowed and making them safer when used together. Buttons, once special knowledge, were given specific placement parameters and requirements to break the power to the lock, directly; the somewhat unreliable motion sensor was backed up by the button; the 30 second re-triggerable and independent timer attached to the button protected against CPU failure and allowed 30 seconds before relocking so the disabled could get through the door; and the connection to the fire system meant that the door would unlock upon alarm. It was an alternate code, designed to be used sparingly and in certain situations.

This code is used heavily in hospitals, but its application is often misunderstood. It is time to clean up this code by eliminating confusing references to *access control systems*, directly or implied. Access has never been an issue for the codes, except in high-rise stair towers.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E78-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.8-E-WILLIAMS-ADHOC.doc

E79 – 12
1008.1.9.8 (IFC [B] 1008.1.9.8)

Proponent: John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA) (jwoestman@kellencompany.com)

Revise as follows:

1008.1.9.8 (IFC [B] 1008.1.9.8) ~~Access controlled~~ Electrically locked egress doors. Electically locked ~~The entrance~~ doors without a door mounted manual lock release located in a means of egress in buildings with an occupancy in Groups A, B, E, I-2, M, R-1 or R-2 and entrance doors to tenant spaces in occupancies in groups A, B, E, I-2, M, R-1 or R-2 ~~are~~ shall be permitted ~~to be equipped with an approved entrance and egress access control system, listed in accordance with UL 294,~~ ~~which shall be~~ where installed and operated in accordance with all of the following criteria:

1. A sensor shall be provided on the egress side arranged to detect an occupant approaching the doors. The doors shall be arranged to unlock by a signal from or loss of power to the sensor.
2. Loss of power to ~~that~~ the lock ~~part of the access control system which locks the doors~~ shall automatically unlock the doors.
3. The doors shall be arranged to unlock from a manual unlocking device located 40 inches to 48 inches (1016mm to 1219mm) vertically above the floor and within 5 feet (1524mm) of the secured doors. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads "PUSH TO EXIT." When operated, the manual unlocking device shall result in direct interruption of power to the lock—independent of the ~~access control~~ locking system electronics—and the doors shall remain unlocked for a minimum of 30 seconds.
4. Activation of the building fire alarm system, if provided, shall automatically unlock the doors, and the doors shall remain unlocked until the fire alarm system has been reset.
5. Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the doors. The doors shall remain unlocked until the fire alarm system has been reset.
6. Entrance doors in buildings with an occupancy in Group A, B, E, or M shall ~~not be secured from the~~ always allow immediate free egress ~~side~~ during periods that the building is open to the general public.
7. The components of the door locking system shall be listed in accordance with UL 294.

Reason: Changes above illustrate BHMA's suggested revisions from the 2012 IBC incorporating the ICC AHC MOE work group's proposed revisions, and further BHMA revisions. Revisions are to the main paragraph, Items 1, 3 and 7.

The doors included in this section utilize electrical components in their locking systems to help ensure egress. These systems use a sensor to recognized the presence of a pedestrian, and then unlock the electrical lock (such as an electromagnetic lock) but these electrical locking systems are also required to be unlockable by a manually operated button mounted on the wall on the egress side of the door (Item 3 of the criteria). Regarding the sensors, the sensor technologies used with these doors may not technically be a motion sensor.

Access-controlled egress doors are commonly configured without a door-mounted manual lock release on the egress side such as panic hardware. These doors usually require a magnetic card or similar instrument for authorized entry, and the absence of the door-mounted manual lock release on the egress side prevents a person on the outside from inserting a wire or similar tool between the gaps in the door edges to release the lock.

The other revisions are essentially editorial or help to clarify the intent.

Background: the Builders Hardware Manufacturers Association (BHMA) members have been observing the AHC and CTC meetings and activities with most interest in the potential code proposals that may have implications to the means of egress, and to doors and door hardware requirements.

The BHMA Codes and Government Affairs (CGA) committee met immediately after the Orlando ICC AHC meeting for a final look-see at the proposed language. Many of the BHMA CGA members had reviewed the draft AHC MOE language individually without identifying concern or opportunities for improvement. But when together in Orlando, the BHMA members identified several opportunities for further revision to the AHC proposals.

We've captured our suggestions for additional considerations in this proposal. We're not wanting to circumvent the work of the AHC and CTC; that's why several of us have been attending the AHC and CTC meetings and phone calls. We just did not recognize some of the opportunities while reviewing the language individually, and only when the BHMA CGA committee got together for – what we thought would be – a quick final review, did we realize several concerns and opportunities for revisions.

Cost Impact: None.

E79-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.8-E-Woestman.doc

E80 – 12
1008.1.9.8 (IFC [B] 1008.1.9.8)

Proponent: Robert Trotter, representing Tennessee Code Development Committee (bobtrotter1023@aol.com)

Revise as follows:

1008.1.9.8 (IFC [B] 1008.1.9.8) Access-controlled egress doors. The entrance doors in a means of egress in buildings with an occupancy in Group A, B, E, M, R-1 or R-2 and entrance doors to tenant spaces in occupancies in Groups A, B, E, M, R-1 and R-2 are permitted to be equipped with an approved entrance and egress access control system, listed in accordance with UL 294, which shall be installed in accordance with all of the following criteria:

1. A sensor shall be provided on the egress side arranged to detect an occupant approaching the doors. The doors shall be arranged to unlock by a signal from or loss of power to the sensor.
2. Loss of power to that part of the access control system which locks the doors shall automatically unlock the doors.
3. The doors shall be arranged to unlock from a manual unlocking device located 40 inches to 48 inches (1016 mm to 1219 mm) vertically above the floor and within 5 feet (1524 mm) of the secured doors. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads “PUSH TO EXIT.” When operated, the manual unlocking device shall result in direct interruption of power to the lock—independent of the access control system electronics—and the doors shall remain unlocked for a minimum of 30 seconds.
4. Activation of the building fire alarm system, if provided, shall automatically unlock the doors, and the doors shall remain unlocked until the fire alarm system has been reset.
5. Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the doors. The doors shall remain unlocked until the fire alarm system has been reset.
6. ~~Entrance doors in buildings with an occupancy in Group A, B, E or M shall not be secured from the egress side during periods that the building is open to the general public.~~

Reason: The sixth criterion is redundant and should be removed from the code. The first five requirements satisfactorily meet the needs for access-controlled egress doors. The doors are not secured from the egress side when the first five criterions are met.

Cost Impact: The code change proposal will not increase the cost of construction.

E80-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.8-E-Trotter.doc

E81-12
1008.1.9.9 (IFC [B] 1008.1.9.9)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

Revise as follows:

1008.1.9.9 (IFC [B] 1008.1.9.9) Electromagnetically locked egress doors. Doors in the *means of egress* in buildings with an occupancy in Group A, B, E, I-2, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, I-2, M, R-1 or R-2 shall be permitted to be electromagnetically locked if equipped with listed hardware that incorporates a built-in switch and meet the requirements below :

1. The listed hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
2. The listed hardware is capable of being operated with one hand.
3. Operation of the listed hardware directly interrupts the power to the electromagnetic lock and unlocks the door immediately.
4. Loss of power to the listed hardware automatically unlocks the door.
5. Where panic or *fire exit hardware* is required by Section 1008.1.10, operation of the listed panic or *fire exit hardware* also releases the electromagnetic lock.

Reason: The addition of I-2 is necessary since so many of these health care facilities use electromagnetic locks for security and personnel safety, something that 1008.1.9.8 cannot provide.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx.

Cost Impact: None

E81-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.9#2-E-WILLIAMS-ADHOC.doc

E82-12
1008.1.9.9 (IFC [B] 1008.1.9.9)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

Revise as follows:

1008.1.9.9 (IFC [B] 1008.1.9.9) Door hardware release of electromagnetic locks on ~~Electromagnetically locked~~ egress doors. Doors in the *means of egress* in buildings with an occupancy in Group A, B, E, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, M, R-1 or R-2 shall be permitted to be electromagnetically locked if equipped with ~~listed~~ hardware that incorporates a built-in switch and ~~meet the requirements below~~ are installed and operated in accordance with Items 1 through 6 below:

1. The ~~listed~~ hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
2. The ~~listed~~ hardware is capable of being operated with one hand.
3. Operation of the ~~listed~~ hardware directly interrupts the power to the electromagnetic lock and unlocks the door immediately.
4. Loss of power to the ~~listed~~ hardware automatically unlocks the door.
5. Where panic or *fire exit hardware* is required by Section 1008.1.10, operation of the ~~listed~~ panic or *fire exit hardware* also releases the electromagnetic lock.
6. All components of the door locking system shall be listed in accordance with UL 294.

Reason: The title change is to prevent confusion between the two types of releasing systems for electromagnetic locks as both codes, 1008.1.9.8 and 1008.1.9.9, detail these requirements which are very different from each other. The remainder of the change is editorial for consistency with other sections.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx.

Cost Impact: None

E82-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.9-E-WILIAMS-ADHOC.doc

E83 – 12

1008.1.9.9 (IFC [B] 1008.1.9.9)

Proponent: John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA) (jwoestman@kellencompany.com)

Revise as follows:

1008.1.9.9 (IFC [B] 1008.1.9.9) Electromagnetically locked egress doors. Doors in the *means of egress* in buildings with an occupancy in Group A, B, E, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, M, R-1 or R-2 shall be permitted to be electromagnetically locked if equipped with ~~listed~~ hardware that incorporates a built-in switch and ~~meet the requirements below~~ are installed and operated in accordance with Items 1 through 6 below:

1. The ~~listed~~ hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
2. The ~~listed~~ hardware is capable of being operated with one hand.
3. Operation of the ~~listed~~ hardware directly interrupts the power to the electromagnetic lock and unlocks the door immediately.
4. Loss of power to the ~~listed~~ hardware automatically unlocks the door.
5. Where panic or *fire exit hardware* is required by Section 1008.1.10, operation of the ~~listed~~ panic or *fire exit hardware* also releases the electromagnetic lock.
6. The components of the door locking system shall be listed in accordance with UL 294.

Reason: Changes above illustrate BHMA's suggested revisions from the 2012 IBC incorporating the ICC AHC MOE work group's proposed revisions, and further BHMA revisions. After further review, BHMA members suggest leaving the name of the section as it is in the 2012 IBC. There is a slight change to Item 6 –'the' instead of 'all'.

Background: the Builders Hardware Manufacturers Association (BHMA) members have been observing the AHC and CTC meetings and activities with most interest in the potential code proposals that may have implications to the means of egress, and to doors and door hardware requirements.

The BHMA Codes and Government Affairs (CGA) committee met immediately after the Orlando AHC meeting for a final look-see at the proposed AHC language. Many of the BHMA CGA members had reviewed the draft AHC MOE language individually without identifying concern or opportunities for improvement. But when together in Orlando, the BHMA members identified several opportunities for further revision to the AHC proposals.

We've captured our suggestions for additional considerations in this proposal. We're not wanting to circumvent the work of the AHC and CTC; that's why several of us have been attending the AHC and CTC meetings and phone calls. We just did not recognize some of the opportunities while reviewing the language individually, and only when the BHMA CGA committee got together for – what we thought would be – a quick final review, did we realize several concerns and opportunities for revisions.

Cost Impact: None.

E83-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.9-E-Woestman.doc

E84 – 12
1008.1.10 (IFC [B] 1008.1.10)

Proponent: John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA) (jwoestman@kellencompany.com)

Revise as follows:

1008.1.10 (IFC [B] 1008.1.10) Panic and fire exit hardware. Doors serving a Group H occupancy and doors serving rooms or spaces with an *occupant load* of 50 or more in a Group A or E occupancy shall not be provided with a latch or lock unless it is *panic hardware* or *fire exit hardware*.

~~Exception~~ Exceptions:

1. A main *exit* of a Group A occupancy shall be permitted to be locking in accordance ~~compliance~~ with Section 1008.1.9.3, Item 2.
2. Doors serving a Group A or E occupancy shall be permitted to be electromagnetically locked in accordance with Section 1008.1.9.9.

Electrical rooms with equipment rated 1,200 amperes or more and over 6 feet (1829 mm) wide that contain overcurrent devices, switching devices or control devices with *exit* or *exit access* doors shall be equipped with *panic hardware* or *fire exit hardware*. The doors shall swing in the direction of egress travel.

Reason: A potential interpretation of the requirements of 1008.1.10 is to not allow any other lock or latch where panic hardware or fire exit hardware is required. But 1008.1.9.9 allows an electromagnetic lock where panic or fire exit hardware is required by 1008.1.10. The proposed language clarifies electromagnetic locks are permitted where panic or fire exit hardware is required.

The revision to the existing exception is correlative and editorial only.

Cost Impact: None.

E84-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.10-E-Woestman.doc

E85 – 12

1022.6 (New), 1023.7 (New), 1025.4 (New) [IFC 1022.6 (New), 1023.7 (New), 1025.4 (New)]

Proponent: Lee J. Kranz, City of Bellevue, Washington, representing Washington Association of Building Officials Technical Code Development Committee (lkranz@bellevuewa.gov)

Add new text as follows:

1022.6 (IFC [B] 1022.6) Standpipes. Class 1 standpipe hose connections shall be provided in accordance with Item 1 or 5 of Section 905.4 and NFPA 14.

(Renumber subsequent sections)

1023.7 (IFC [B] 1023.7) Standpipes. Class 1 standpipe hose connections shall be provided in accordance with Item 3 of Section 905.4 and NFPA 14.

1025.4 (IFC [B] 1025.5) Standpipes. Class 1 standpipe hose connections shall be provided in accordance with Item 2 of Section 905.4 and NFPA 14.

(Renumber subsequent sections)

Reason: Placing references to Section 905.4 and NFPA 14 standpipe requirements in exit stairways, horizontal exits and exit passageways will help designers and reviewers to include this requirement early in the design process. During the means of egress design process, the requirement for standpipes for horizontal exits and exit passageways are frequently overlooked and may have significant cost impacts to correct. Including the standpipe references in Sections 1023 and 1025 will make the design team aware of the requirement early in the design process and help insure cost impacts are considered at the appropriate time. Adding the requirement in Section 1022 is for consistency.

The intent is to have an IFC change to clarify that standpipes should be located within the enclosure for interior exit stairways. Literally the current text, by saying all required stairways, would require standpipes on exit access stairways and exterior exit stairway. If it is felt that standpipes should be provided in these locations, a modification would be to add this same language in a new Section 1009.3.1.8 for exit access stairways and 1026.7 for exterior exit stairways.

Cost Impact: None

E85-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1023.7-E-Kranz.doc

E86 – 12

1007.1, 1009.4, 1009.7.2, 1009.7.4, 1009.8, 1009.10, 1009.15, 1010.3, 1028.6.1, 1028.6.3, 1028.11.2, 1028.13, 1028.13.2 (IFC [B] 1007.1, 1009.4, 1009.7.2, 1009.7.4, 1009.8, 1009.10, 1009.15, 1010.3, 1028.6.1, 1028.6.3, 1028.11.2, 1028.13, 1028.13.2)

Proponent: Gene Boecker, AIA, Code Consultants, Inc, representing self (geneb@codeconsultants.com)

Revise as follows:

1007.1 (IFC [B] 1007.1) Accessible means of egress required. Accessible means of egress shall comply with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress are required by Section 1015.1 or 1021.1 from any accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress.

Exceptions:

1. Accessible means of egress are not required in alterations to existing buildings.
2. One accessible means of egress is required from an accessible mezzanine level in accordance with Section 1007.3, 1007.4 or 1007.5.
3. In assembly areas with ~~sloped~~ ramped aisles or stepped aisles, one accessible means of egress is permitted where the common path of travel is accessible and meets the requirements in Section 1028.8.

1009.4 (IFC [B] 1009.4) Width. The width of stairways shall be determined as specified in Section 1005.1, but such width shall not be less than 44 inches (1118 mm). See Section 1007.3 for accessible means of egress stairways.

Exceptions:

1. Stairways serving an occupant load of less than 50 shall have a width of not less than 36 inches (914 mm).
2. Spiral stairways as provided for in Section 1009.12.
3. ~~Aisle stairs~~ Stepped aisles complying with Section 1028.
4. Where an incline platform lift or stairway chairlift is installed on stairways serving occupancies in Group R-3, or within dwelling units in occupancies in Group R-2, a clear passage width not less than 20 inches (508 mm) shall be provided. If the seat and platform can be folded when not in use, the distance shall be measured from the folded position.

1009.7.2 (IFC [B] 1009.7.2) Riser height and tread depth. Stair riser heights shall be 7 inches (178 mm) maximum and 4 inches (102 mm) minimum. The riser height shall be measured vertically between the nosings of adjacent treads. Rectangular tread depths shall be 11 inches (279 mm) minimum measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's nosing. Winder treads shall have a minimum tread depth of 11 inches (279 mm) between the vertical planes of the foremost projection of adjacent treads at the intersections with the walkline and a minimum tread depth of 10 inches (254 mm) within the clear width of the stair.

Exceptions:

1. Alternating tread devices in accordance with Section 1009.13.
2. Ship ladders in accordance with Section 1009.14.
3. Spiral stairways in accordance with Section 1009.12.

4. ~~Aisle stairs~~ Stepped aisles in assembly seating areas where the stair pitch or slope is set, for sightline reasons, by the slope of the adjacent seating area in accordance with Section 1028.11.2.
5. In Group R-3 occupancies; within dwelling units in Group R-2 occupancies; and in Group U occupancies that are accessory to a Group R-3 occupancy or accessory to individual dwelling units in Group R-2 occupancies; the maximum riser height shall be 7 ¾ inches (197 mm); the minimum tread depth shall be 10 inches (254 mm); the minimum winder tread depth at the walkline shall be 10 inches (254 mm); and the minimum winder tread depth shall be 6 inches (152 mm). A nosing projection not less than ¾ inch (19.1 mm) but not more than 1 ¼ inches (32 mm) shall be provided on stairways with solid risers where the tread depth is less than 11 inches (279 mm).
6. See Section 3404.1 for the replacement of existing stairways.
7. In Group I-3 facilities, stairways providing access to guard towers, observation stations and control rooms, not more than 250 square feet (23 m^2) in area, shall be permitted to have a maximum riser height of 8 inches (203 mm) and a minimum tread depth of 9 inches (229 mm).

1009.7.4 (IFC [B] 1009.7.4) Dimensional uniformity. Stair treads and risers shall be of uniform size and shape. The tolerance between the largest and smallest riser height or between the largest and smallest tread depth shall not exceed $^3/_8$ inch (9.5 mm) in any flight of stairs. The greatest winder tread depth at the walkline within any flight of stairs shall not exceed the smallest by more than $^3/_8$ inch (9.5 mm).

Exceptions:

1. Nonuniform riser dimensions of ~~aisle stairs~~ stepped aisles complying with Section 1028.11.2.
2. Consistently shaped winders, complying with Section 1009.7, differing from rectangular treads in the same stairway flight.

Where the bottom or top riser adjoins a sloping public way, walkway or driveway having an established grade and serving as a landing, the bottom or top riser is permitted to be reduced along the slope to less than 4 inches (102 mm) in height, with the variation in height of the bottom or top riser not to exceed one unit vertical in 12 units horizontal (8-percent slope) of stairway width. The nosings or leading edges of treads at such nonuniform height risers shall have a distinctive marking stripe, different from any other nosing marking provided on the stair flight. The distinctive marking stripe shall be visible in descent of the stair and shall have a slip-resistant surface. Marking stripes shall have a width of at least 1 inch (25 mm) but not more than 2 inches (51 mm).

1009.8 (IFC [B] 1009.8) Stairway landings. There shall be a floor or landing at the top and bottom of each stairway. The width of landings shall not be less than the width of stairways they serve. Every landing shall have a minimum width measured perpendicular to in the direction of travel equal to the width of the stairway. Where the stairway has a straight run the depth need not exceed 48 inches (1219 mm). Doors opening onto a landing shall not reduce the landing to less than one-half the required width. When fully open, the door shall not project more than 7 inches (178 mm) into a landing. When wheelchair spaces are required on the stairway landing in accordance with Section 1007.6.1, the wheelchair space shall not be located in the required width of the landing and doors shall not swing over the wheelchair spaces.

Exception: ~~Aisle stairs~~ Stepped aisles complying with Section 1028.

1009.10 (IFC [B] 1009.10) Vertical rise. A flight of stairs shall not have a vertical rise greater than 12 feet (3658 mm) between floor levels or landings.

Exceptions:

1. ~~Aisle stairs~~ Stepped aisles complying with Section 1028.

2. Alternating tread devices used as a means of egress shall not have a rise greater than 20 feet (6096 mm) between floor levels or landings.
3. Spiral stairways used as a means of egress from technical production areas.

1009.15 (IFC [B] 1009.15) Handrails. Stairways shall have handrails on each side and shall comply with Section 1012. Where glass is used to provide the handrail, the handrail shall also comply with Section 2407.

Exceptions:

1. Handrails for ~~aisle stairs~~ stepped aisles provided in accordance with Section 1028.13.
2. Stairways within dwelling units and spiral stairways are permitted to have a handrail on one side only.
3. Decks, patios and walkways that have a single change in elevation where the landing depth on each side of the change of elevation is greater than what is required for a landing do not require handrails.
4. In Group R-3 occupancies, a change in elevation consisting of a single riser at an entrance or egress door does not require handrails.
5. Changes in room elevations of three or fewer risers within dwelling units and sleeping units in Group R-2 and R-3 do not require handrails.

1010.3 (IFC [B] 1010.3) Slope. Ramps used as part of a means of egress shall have a running slope not steeper than one unit vertical in 12 units horizontal (8-percent slope). The slope of other pedestrian ramps shall not be steeper than one unit vertical in eight units horizontal (12.5-percent slope).

Exception: ~~Aisle ramp~~ The slope of a ramped aisle in a room or space used for assembly purposes shall comply with Section 1028.11.

1028.6.1 (IFC [B] 1028.6.1) Without smoke protection. The clear width of the means of egress shall provide sufficient capacity in accordance with all of the following, as applicable:

1. At least 0.3 inch (7.6 mm) of width for each occupant served shall be provided on ~~stairs~~ stepped aisles having riser heights 7 inches (178 mm) or less and tread depths 11 inches (279 mm) or greater, measured horizontally between tread nosings.
2. At least 0.005 inch (0.127 mm) of additional ~~stair~~ stepped aisle width for each occupant shall be provided for each 0.10 inch (2.5mm) of riser height above 7 inches (178 mm).
3. Where egress requires ~~stair~~ stepped aisle descent, at least 0.075 inch (1.9 mm) of additional width for each occupant shall be provided on those portions of ~~stair~~ stepped aisle width having no handrail within a horizontal distance of 30 inches (762 mm).
4. Ramped aisles ~~means of egress~~, where slopes are steeper than one unit vertical in 12 units horizontal (8-percent slope), shall have at least 0.22 inch (5.6 mm) of clear width for each occupant served. Level or ramped aisles ~~means of egress~~, where slopes are not steeper than one unit vertical in 12 units horizontal (8-percent slope), shall have at least 0.20 inch (5.1 mm) of clear width for each occupant served.

1028.6.3 (IFC [B] 1028.6.3) Width of means of egress for outdoor smoke-protected assembly seating. The clear width in inches (mm) of aisles and other means of egress shall be not less than the total occupant load served by the egress element multiplied by 0.08 (2.0 mm) where egress is by ~~aisles and stairs~~ stepped aisles and stairways and multiplied by 0.06 (1.52 mm) where egress is by ~~ramps~~ aisles, ramped aisles, corridors, tunnels or vomitories.

Exception: The clear width in inches (mm) of aisles and other means of egress shall be permitted to comply with Section 1028.6.2 for the number of seats in the outdoor smoke-protected assembly seating where Section 1028.6.2 permits less width.

1028.11.2 (IFC [B] 1028.11.2) Risers. Where the gradient of ~~aisle stairs~~ stepped aisles is to be the same as the gradient of adjoining seating areas, the riser height shall not be less than 4 inches (102 mm) nor more than 8 inches (203 mm) and shall be uniform within each flight.

Exceptions:

1. Riser height nonuniformity shall be limited to the extent necessitated by changes in the gradient of the adjoining seating area to maintain adequate sightlines. Where nonuniformities exceed 3/16 inch (4.8 mm) between adjacent risers, the exact location of such nonuniformities shall be indicated with a distinctive marking stripe on each tread at the nosing or leading edge adjacent to the nonuniform risers. Such stripe shall be a minimum of 1 inch (25 mm), and a maximum of 2 inches (51 mm), wide. The edge marking stripe shall be distinctively different from the contrasting marking stripe.
2. Riser heights not exceeding 9 inches (229 mm) shall be permitted where they are necessitated by the slope of the adjacent seating areas to maintain sightlines.

1028.13 (IFC [B] 1028.13) Handrails. Ramped aisles having a slope exceeding one unit vertical in 15 units horizontal (6.7-percent slope) and ~~aisle stairs~~ stepped aisles shall be provided with handrails in compliance with Section 1012 located either at one or both sides of the aisle or within the aisle width.

Exceptions:

1. Handrails are not required for ramped aisles having a gradient no greater than one unit vertical in eight units horizontal (12.5-percent slope) and seating on both sides.
2. Handrails are not required if, at the side of the aisle, there is a guard that complies with the graspability requirements of handrails.
3. Handrail extensions are not required at the top and bottom of ~~aisle stair~~ stepped aisles and ~~aisle ramp runs~~ ramped aisles to permit crossovers within the aisles.

1028.13.2 (IFC [B] 1028.13.2) Intermediate handrails. Where handrails are provided in the middle of ~~aisle stairs,~~ stepped aisles there shall be an additional intermediate handrail located approximately 12 inches (305 mm) below the main handrail.

Reason: The intent is to use language that is more common and consistent with the manner in which it is applied. The adjective defines the noun. In all the cases within the code the thing being described is the aisle and the stepped or ramped aspect is the adjective.

Changing the phase "aisle stairs" to "stepped aisles" in multiple locations: Throughout the sections of the code that address aisles, the adjective is used and then the term "aisle" follows, except for this element. There are "cross" aisles and "ramped" aisles but the term is changed to aisle stairs rather than stepped aisles except in one occurrence. The term "stepped aisles" is already used in Section 1007.1, exception #3.

In the code sections that address stairs the term aisle stairs is used but in the exceptions because they are different than regular stairs. The code language should acknowledge this. The code uses the term stair which is defined. But in the stair section of the code, it offers exception after exception that the requirement does not apply to "aisle stairs." If the text indicates that these are not to be treated as stairs, then the code should not be using that term.

Change the phrase "aisle ramp" to "ramped aisles" in three locations: In all conditions except these three, the term used in the code to address these elements is "ramped aisle." These are the only cases where the term is not used consistently. The proposal seeks to make this aspect of the code consistent throughout.

Section 1028.6.3: It is clear that the intent of the language in the exception to Section 1028.6.3 is to address the vertical elements for aisles. Consistent with the language changes proposed, this should be clarified that it is the "stepped" aisles that are being discussed since the following phrase clearly addresses horizontal elements.

This is but another example where the term stairs is inappropriate since it would be confusing to say "aisle stairs and stairs." If the aisle stairs are already stairs then the expression is redundant. If they are different then the terminology should address that.

Cost Impact: The code change proposal will not increase the cost of construction.

E86-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

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E87-12
1007.1, 1009, 1010, 1012, 1013, 1028 (IFC [B] 1007.1, 1009, 1010, 1012, 1013, 1028)

Proponent: S. Bajnai, Chesterfield County, VA, ICC Building Code Action Committee

Revise as follows:

SECTION 1009 (IFC [B] 1009)
STAIRWAYS

1009.1 (IFC [B] 1009.1) General. Stairways serving occupied portions of a building shall comply with the requirements of this section.

> **Exception:** Within rooms or spaces used for assembly purposes, aisle stairs shall comply with Section 1028.

1009.4 (IFC [B] 1009.4) Width. The width of stairways shall be determined as specified in Section 1005.1, but such width shall not be less than 44 inches (1118 mm). See Section 1007.3 for accessible means of egress stairways.

> **Exceptions:**
>
> 1. Stairways serving an occupant load of less than 50 shall have a width of not less than 36 inches (914 mm).
> 2. Spiral stairways as provided for in Section 1009.12.
> 3. ~~Aisle stairs complying with Section 1028.~~
> 4. Where an incline platform lift or stairway chairlift is installed on stairways serving occupancies in Group R-3, or within dwelling units in occupancies in Group R-2, a clear passage width not less than 20 inches (508 mm) shall be provided. If the seat and platform can be folded when not in use, the distance shall be measured from the folded position.

1009.7 (IFC [B] 1009.7) Stair treads and risers. Stair treads and risers shall comply with Sections 1009.7.1 through 1009.7.5.3.

1009.7.2 (IFC [B] 1009.7.2) Riser height and tread depth. Stair riser heights shall be 7 inches (178 mm) maximum and 4 inches (102 mm) minimum. The riser height shall be measured vertically between the nosings of adjacent treads. Rectangular tread depths shall be 11 inches (279 mm) minimum measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's nosing. Winder treads shall have a minimum tread depth of 11 inches (279 mm) between the vertical planes of the foremost projection of adjacent treads at the intersections with the walkline and a minimum tread depth of 10 inches (254 mm) within the clear width of the stair.

> **Exceptions:**
>
> 1. Alternating tread devices in accordance with Section 1009.13.
> 2. Ship ladders in accordance with Section 1009.14.
> 3. Spiral stairways in accordance with Section 1009.12.
> 4. ~~Aisle stairs in assembly seating areas where the stair pitch or slope is set, for sightline reasons, by the slope of the adjacent seating area in accordance with Section 1028.11.2.~~
> ~~5~~4. In Group R-3 occupancies; within dwelling units in Group R-2 occupancies; and in Group U occupancies that are accessory to a Group R-3 occupancy or accessory to individual dwelling units in Group R-2 occupancies; the maximum riser height shall be 7 ¾ inches (197 mm); the minimum tread depth shall be 10 inches (254 mm); the minimum winder tread depth at the walkline shall be 10 inches (254 mm); and the minimum winder tread depth shall be 6 inches (152 mm). A nosing projection not less than ¾ inch (19.1 mm) but not more than 1 ¼ inches

(32 mm) shall be provided on stairways with solid risers where the tread depth is less than 11 inches (279 mm).

~~6~~5. See Section 3404.1 for the replacement of existing stairways.

~~7~~6. In Group I-3 facilities, stairways providing access to guard towers, observation stations and control rooms, not more than 250 square feet (23 m^2) in area, shall be permitted to have a maximum riser height of 8 inches (203 mm) and a minimum tread depth of 9 inches (229 mm).

1009.7.4 (IFC [B] 1009.7.4) Dimensional uniformity. Stair treads and risers shall be of uniform size and shape. The tolerance between the largest and smallest riser height or between the largest and smallest tread depth shall not exceed 3/8 inch (9.5 mm)in any flight of stairs. The greatest winder tread depth at the walk line within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).

Exceptions:

~~1. Nonuniform riser dimensions of aisle stairs complying with Section 1028.11.2.~~

~~2~~1. Consistently shaped winders, complying with Section 1009.7, differing from rectangular treads in the same stairway flight.

Where the bottom or top riser adjoins a sloping public way, walkway or driveway having an established grade and serving as a landing, the bottom or top riser is permitted to be reduced along the slope to less than 4 inches (102 mm) in height, with the variation in height of the bottom or top riser not to exceed one unit vertical in 12 units horizontal (8-percent slope) of stairway width. The nosings or leading edges of treads at such nonuniform height risers shall have a distinctive marking stripe, different from any other nosing marking provided on the stair flight. The distinctive marking stripe shall be visible in descent of the stair and shall have a slip-resistant surface. Marking stripes shall have a width of at least 1 inch (25 mm) but not more than 2 inches (51 mm).

1009.8 (IFC [B] 1009.8) Stairway landings. There shall be a floor or landing at the top and bottom of each stairway. The width of landings shall not be less than the width of stairways they serve. Every landing shall have a minimum width measured perpendicular to in the direction of travel equal to the width of the stairway. Where the stairway has a straight run the depth need not exceed 48 inches (1219 mm). Doors opening onto a landing shall not reduce the landing to less than one-half the required width. When fully open, the door shall not project more than 7 inches (178 mm) into a landing. When wheelchair spaces are required on the stairway landing in accordance with Section 1007.6.1, the wheelchair space shall not be located in the required width of the landing and doors shall not swing over the wheelchair spaces.

Exception: ~~Aisle stairs complying with Section 1028.~~

1009.10 (IFC [B] 1009.10) Vertical rise. A flight of stairs shall not have a vertical rise greater than 12 feet (3658 mm) between floor levels or landings.

Exceptions:

1. ~~Aisle stairs complying with Section 1028~~.
2. Alternating tread devices used as a means of egress shall not have a rise greater than 20 feet (6096 mm) between floor levels or landings.
3. Spiral stairways used as a means of egress from technical production areas.

1009.15 (IFC [B] 1009.15) Handrails. Stairways shall have handrails on each side and shall comply with Section 1012. Where glass is used to provide the handrail, the handrail shall also comply with Section 2407.

Exceptions:

~~1. Handrails for aisle stairs provided in accordance with Section 1028.13.~~
~~2~~1. Stairways within dwelling units, and spiral stairways are permitted to have a handrail on one side only.
~~3~~2. Decks, patios and walkways that have a single change in elevation where the landing depth on each side of the change of elevation is greater than what is required for a landing do not require handrails.
~~4~~3. In Group R-3 occupancies, a change in elevation consisting of a single riser at an entrance or egress door does not require handrails.
~~5~~4. Changes in room elevations of three or fewer risers within dwelling units and sleeping units in Group R-2 and R-3 do not require handrails.

1009.16 (IFC [B] 1009.16) Guards. Guards shall be provided where required by Section 1013 and shall be constructed in accordance with Section 1013.

SECTION 1010 (IFC [B] 1010)
RAMPS

1010.1 (IFC [B] 1010.1) Scope. The provisions of this section shall apply to ramps used as a component of a means of egress.

Exceptions:

~~1. Other than ramps that are part of the accessible routes providing access in accordance with Sections 1108.2 through 1108.2.4 and 1108.2.6,~~ Ramped aisles within assembly rooms or spaces shall ~~conform~~ comply with the provisions in Section 1028~~.11~~.
~~2~~1. Curb ramps shall comply with ICC A117.1.
~~3~~2. Vehicle ramps in parking garages for pedestrian exit access shall not be required to comply with Sections 1010.4 through 1010.10 when they are not an accessible route serving accessible parking spaces, other required accessible elements or part of an accessible means of egress.

1010.3 (IFC [B] 1010.3) Slope. Ramps used as part of a means of egress shall have a running slope not steeper than one unit vertical in 12 units horizontal (8-percent slope). The slope of other pedestrian ramps shall not be steeper than one unit vertical in eight units horizontal (12.5-percent slope).

~~**Exception:** Aisle ramp slope in a room or space used for assembly purposes shall comply with Section 1028.11~~.

1010.9 (IFC [B] 1010.9) Handrails. Ramps with a rise greater than 6 inches (152 mm) shall have handrails on both sides. Handrails shall comply with Section 1012.

~~**Exception:** Handrails for ramped aisles provided in accordance with Section 1028.13.~~

1010.10 (IFC [B] 1010.10) Edge protection. Edge protection complying with Section 1010.10.1 or 1010.10.2 shall be provided on each side of ramp runs and at each side of ramp landings.

Exceptions:

1. Edge protection is not required on ramps that are not required to have handrails, provided they have flared sides that comply with the ICC A117.1 curb ramp provisions.
2. Edge protection is not required on the sides of ramp landings serving an adjoining ramp run or stairway.

3. Edge protection is not required on the sides of ramp landings having a vertical drop off of not more than ½ inch (12.7 mm) within 10 inches (254 mm) horizontally of the required landing area.
4. ~~In assembly spaces with fixed seating, edge protection is not required on the sides of ramps where the ramps provide access to the adjacent seating and aisle accessways.~~

SECTION 1012 (IFC [B] 1012)
HANDRAILS

1012.1 (IFC [B] 1012.1) Where required. Handrails ~~for~~ serving stairways, ~~and~~ ramps, aisle stairs and ramped aisles shall be adequate in strength and attachment in accordance with Section 1607.8. Handrails required for stairways by Section 1009.15 shall comply with Sections 1012.2 through 1012.9. Handrails required for ramps by Section 1010.9 shall comply with Sections 1012.2 through 1012.8. Handrails for aisle stairs and ramped aisles required by Section 1028.13 shall comply with Sections 1012.2 through 1012.8.

1012.2 (IFC [B] 1012.2) Height. Handrail height, measured above stair tread nosings, or finish surface of ramp slope, shall be uniform, not less than 34 inches (864 mm) and not more than 38 inches (965 mm). Handrail height of alternating tread devices and ship ladders, measured above tread nosings, shall be uniform, not less than 30 inches (762 mm) and not more than 34 inches (864 mm).

Exceptions:

1. When handrail fittings or bendings are used to provide continuous transition between flights the fittings or bendings shall be permitted to exceed the maximum height.
2. In Group R-3 occupancies; within dwelling units in Group R-2 occupancies; and in Group U occupancies that are associated with a Group R-3 occupancy or associated with individual dwelling units in Group R-2 occupancies; when handrail fittings or bendings are used to provide continuous transition between flights, transition at winder treads, transition from handrail to guard, or when used at the start of a flight, the handrail height at the fittings or bendings shall be permitted to exceed the maximum height.
3. Handrails on top of a guard where permitted along aisle stairs and ramped aisles in accordance with Section 1028.13.

1012.4 (IFC [B] 1012.4) Continuity. Handrail gripping surfaces shall be continuous, without interruption by newel posts or other obstructions.

Exceptions:

1. Handrails within dwelling units are permitted to be interrupted by a newel post at a turn or landing.
2. Within a dwelling unit, the use of a volute, turnout, starting easing or starting newel is allowed over the lowest tread.
3. Handrail brackets or balusters attached to the bottom surface of the handrail that do not project horizontally beyond the sides of the handrail within 11/2 inches (38 mm) of the bottom of the handrail shall not be considered obstructions. For each 1/2 inch (12.7 mm) of additional handrail perimeter dimension above 4 inches (102 mm), the vertical clearance dimension of 11/2 inches (38 mm) shall be permitted to be reduced by 1/8 inch (3 mm).
4. Where handrails are provided along walking surfaces with slopes not steeper than 1:20, the bottoms of the handrail gripping surfaces shall be permitted to be obstructed along their entire length where they are integral to crash rails or bumper guards.
5. Handrails serving aisle steps or ramped aisles are permitted to be discontinuous in accordance with 1028.13.1.

1012.6 (IFC [B] 1012.6) Handrail extensions. Handrails shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent stair flight. Where handrails are not

continuous between flights the handrails shall extend horizontally at least 12 inches (305 mm) beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser. At ramps where handrails are not continuous between runs, the handrails shall extend horizontally above the landing 12 inches (305 mm) minimum beyond the top and bottom of ramp runs. The extensions of handrails shall be in the same direction of the stair flights at stairways and the ramp runs at ramps.

Exceptions:

1. Handrails within a dwelling unit that is not required to be accessible need extend only from the top riser to the bottom riser.
2. ~~Aisle~~ handrails serving aisles in rooms or spaces used for assembly purposes are permitted to comply with the handrail extensions in accordance with Section 1028.13.
3. Handrails for alternating tread devices and ship ladders are permitted to terminate at a location vertically above the top and bottom risers. Handrails for alternating tread devices are not required to be continuous between flights or to extend beyond the top or bottom risers.

1012.8 (IFC [B] 1012.8) Projections. On ramps and on ramped aisles that are part of an accessible route, the clear width between handrails shall be 36 inches (914 mm) minimum. Projections into the required width of aisles, stairways and ramps at each side shall not exceed 41/2 inches (114 mm) at or below the handrail height. Projections into the required width shall not be limited above the minimum headroom height required in Section 1009.5. Projections due to intermediate handrails shall not constitute a reduction in the egress width.

SECTION 1013 (IFC [B] 1013)
GUARDS

1013.1 (IFC [B] 1013.1) General. Guards shall comply with the provisions of Section 1013.2 through 1013.7. Operable windows with sills located more than 72 inches (1.83 m) above finished grade or other surface below shall comply with Section 1013.8

1013.2 (IFC [B] 1013.2) Where required. Guards shall be located along open-sided walking surfaces, including mezzanines, equipment platforms, stairs, ramps and landings that are located more than 30 inches (762 mm) measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side. Guards shall be adequate in strength and attachment in accordance with Section 1607.8.

Exception: Guards are not required for the following locations:

1. On the loading side of loading docks or piers.
2. On the audience side of stages and raised platforms, including steps leading up to the stage and raised platforms.
3. On raised stage and platform floor areas, such as runways, ramps and side stages used for entertainment or presentations.
4. At vertical openings in the performance area of stages and platforms.
5. At elevated walking surfaces appurtenant to stages and platforms for access to and utilization of special lighting or equipment.
6. Along vehicle service pits not accessible to the public.
7. In assembly seating areas at cross aisles ~~where guards~~ in accordance with Section 1028.14.1 ~~are permitted and provided~~.

1013.3 (IFC [B] 1013.3) Height. Required guards shall not be less than 42 inches (1067 mm) high, measured vertically as follows:

1. From the adjacent walking surfaces,
2. On stairs and aisle stairs, from the line connecting the leading edges of the tread nosings, and
3. On ramps and ramped aisles, from the ramp surface at the guard.

Exceptions:

1. For occupancies in Group R-3 not more than three stories above grade in height and within individual dwelling units in occupancies in Group R-2 not more than three stories above grade in height with separate means of egress, required guards shall not be less than 36 inches (914 mm) in height measured vertically above the adjacent walking surfaces or fixed seating.
2. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
3. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, where the top of the guard also serves as a handrail on the open sides of stairs, the top of the guard shall not be less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.
4. The guard height in assembly seating areas shall be permitted to comply with Section 1028.14.
5. Along alternating tread devices and ship ladders, guards whose top rail also serves as a handrail, shall have height not less than 30 inches (762 mm) and not more than 34 inches (864 mm), measured vertically from the leading edge of the device tread nosing.

1013.4 (IFC [B] 1013.4) Opening limitations. Required guards shall not have openings which allow passage of a sphere 4 inches (102 mm) in diameter from the walking surface to the required guard height.

Exceptions:

1. From a height of 36 inches (914 mm) to 42 inches (1067 mm), guards shall not have openings which allow passage of a sphere 43/8 inches (111 mm) in diameter.
2. The triangular openings at the open sides of a stair, formed by the riser, tread and bottom rail shall not allow passage of a sphere 6 inches (152 mm) in diameter.
3. At elevated walking surfaces for access to and use of electrical, mechanical or plumbing systems or equipment, guards shall not have openings which allow passage of a sphere 21 inches (533 mm)in diameter.
4. In areas that are not open to the public within occupancies in Group I-3, F, H or S, and for alternating tread devices and ship ladders, guards shall not have openings which allow passage of a sphere 21 inches (533 mm) in diameter.
5. In assembly seating areas, guards required at the end of aisles in accordance with 1028.14.3 ~~where they terminate at a fascia of boxes, balconies and galleries~~ shall not have openings which allow passage of a sphere 4 inches in diameter (102 mm) up to a height of 26 inches (660 mm). From a height of 26 inches (660 mm) to 42 inches (1067 mm) above the adjacent walking surfaces, guards shall not have openings which allow passage of a sphere 8 inches (203 mm) in diameter.
6. Within individual dwelling units and sleeping units in Group R-2 and R-3 occupancies, guards on the open sides of stairs shall not have openings which allow passage of a sphere 43/8 (111 mm)inches in diameter.

SECTION 1028 (IFC [B] 1028)
ASSEMBLY

1028.1 (IFC [B] 1028.1) General. A room or space used for assembly purposes which contain seats, tables, displays, equipment or other material shall comply with this section.

1028.1.1 (IFC [B] 1028.1.1) Bleachers. Bleachers, grandstands and folding and telescopic seating, that are not building elements, shall comply with ICC 300.

1028.6 (IFC [B] 1028.6) Width of means of egress for assembly. The clear width of aisles and other means of egress comply with Section 1028.6.1 where smoke-protected seating is not provided and with Section 1028.6.2 or 1028.6.3 where smoke-protected seating is provided. The clear width shall be measured to walls, edges of seating and tread edges except for permitted projections.

1028.6.1 (IFC [B] 1028.6.1) Without smoke protection. The clear width of the means of egress for assembly seating without smoke protection shall provide sufficient capacity in accordance with all of the following, as applicable:

1. At least 0.3 inch (7.6 mm) of aisle width for each occupant served shall be provided on aisle stairs having riser heights 7 inches (178 mm) or less and tread depths 11 inches (279 mm) or greater, measured horizontally between tread nosings.
2. At least 0.005 inch (0.127 mm) of additional aisle ~~stair~~ width for each occupant shall be provided for each aisle stair with 0.10 inch (2.5mm)of riser height above 7 inches (178 mm).
3. Where egress requires aisle stair descent, at least 0.075 inch (1.9 mm) of additional aisle width for each occupant shall be provided on those portions of aisle stair width having no handrail within a horizontal distance of 30 inches (762 mm).
4. Ramped aisles ~~means of egress~~, where slopes are steeper than one unit vertical in 12 units horizontal (8-percent slope), shall have at least 0.22 inch (5.6 mm) of clear aisle width for each occupant served. Level or ramped aisles or other means of egress, where slopes are not steeper than one unit vertical in 12 units horizontal (8-percent slope), shall have at least 0.20 inch (5.1 mm) of clear width for each occupant served.

1028.6.2 (IFC [B] 1028.6.2) Smoke-protected seating. The clear width of the means of egress for smoke-protected assembly seating shall not be less than the occupant load served by the egress element multiplied by the appropriate factor in Table 1028.6.2. The total number of seats specified shall be those within the space exposed to the same smoke-protected environment. Interpolation is permitted between the specific values shown. A life safety evaluation, complying with NFPA 101, shall be done for a facility utilizing the reduced width requirements of Table 1028.6.2 for smoke-protected assembly seating.

Exception: For an outdoor smoke-protected assembly seating with an occupant load not greater than 18,000, the clear width shall be determined using the factors in Section 1028.6.3.

TABLE 1028.6.2 (IFC [B] TABLE 1028.6.2)
WIDTH OF AISLES FOR SMOKE-PROTECTED ASSEMBLY

TOTAL NUMBER OF SEATS IN THE SMOKEPROTECTED ASSEMBLY SEATING	INCHES OF CLEAR WIDTH PER SEAT SERVED			
	Stairs and aisle ~~steps~~ stairs with handrails within 30 inches	Stairs and aisle ~~steps~~ stairs without handrails within 30 inches	Passageways, doorways, ~~and~~ ramps and ramped aisles not steeper than 1 in 10 in slope	~~Ramps~~ Ramped aisles steeper than 1 in 10 in slope
Equal to or less than 5,000	0.200	0.250	0.150	0.165
10,000	0.130	0.163	0.100	0.110
15,000	0.096	0.120	0.070	0.077
20,000	0.076	0.095	0.056	0.062
Equal to or greater than 25,000	0.060	0.075	0.044	0.048

For SI: 1 inch = 25.4 mm.

1028.6.3 (IFC [B] 1028.6.3) Width of means of egress for outdoor smoke-protected assembly seating. The clear width in inches (mm) of aisles and other means of egress shall be not less than the total occupant load served by the egress element multiplied by 0.08 (2.0 mm) where egress is by ~~aisles and~~ aisle stairs and multiplied by 0.06 (1.52 mm) where egress is by level aisles and ~~ramps~~ ramped aisles, corridors, tunnels or vomitories.

Exception: The clear width in inches (mm) of aisles and other means of egress shall be permitted to comply with Section 1028.6.2 for the number of seats in the outdoor smoke-protected assembly seating where Section 1028.6.2 permits less width.

1028.7 (IFC [B] 1028.7) Travel distance. Exits and aisles shall be so located that the travel distance to an exit door shall not be greater than 200 feet (60 960 mm) measured along the line of travel in nonsprinklered buildings. Travel distance shall not be more than 250 feet (76 200 mm) in sprinklered buildings. Where aisles are provided for seating, the distance shall be measured along the aisles and aisle accessway without travel over or on the seats.

Exceptions:

1. Smoke-protected assembly seating: The travel distance from each seat to the nearest entrance to a vomitory or concourse shall not exceed 200 feet (60 960 mm). The travel distance from the entrance to the vomitory or concourse to a ~~stair~~ stairway, ramp or walk on the exterior of the building shall not exceed 200 feet (60 960 mm).
2. Open-air seating: The travel distance from each seat to the building exterior shall not exceed 400 feet (122 m). The travel distance shall not be limited in facilities of Type I or II construction.

1028.9 (IFC [B] 1028.9) Assembly aisles are required. Every occupied portion of any building, room or space used for assembly purposes that contains seats, tables, displays, similar fixtures or equipment shall be provided with aisles leading to exits or exit access doorways in accordance with this section. ~~Aisle accessways for tables and seating shall comply with Section 1028.10.1~~.

1028.9.1 (IFC [B] 1028.9.1) Minimum aisle width. The minimum clear width for aisles shall be as shown:

1. Forty-eight inches (1219 mm) for aisle stairs having seating on each side

.

   Exception: Thirty-six inches (914 mm) where the aisle stairs serves less than 50 seats.

2. Thirty-six inches (914 mm) for aisle stairs having seating on only one side.

   Exception: Twenty-three inches (584 mm) between an aisle stair handrail and seating where an aisle stairs does not serve more than five rows on one side.

3. Twenty-three inches (584 mm) between an aisle stair handrail or guard and seating where the aisle stairs is subdivided by a handrail.
4. Forty-two inches (1067 mm) for level or ramped aisles having seating on both sides.

   Exceptions:

   1. Thirty-six inches (914 mm) where the aisle serves less that 50 seats.
   2. Thirty inches (762 mm) where the aisle does not serve more than 14 seats.

5. Thirty-six inches (914 mm) for level or ramped aisles having seating on only one side.

   Exception: For other than ramped aisles that serve as part of an accessible route, Thirty inches (762 mm) where the ramped aisle does not serve more than 14 seats.

1028.9.2 (IFC [B] 1028.9.2) Aisle catchment area ~~width~~. The aisle width shall provide sufficient egress capacity for the number of persons accommodated by the catchment area served by the aisle. The catchment area served by an aisle is that portion of the total space that is served by that section of the aisle. In establishing catchment areas, the assumption shall be made that there is a balanced use of all means of egress, with the number of persons in proportion to egress capacity.

1028.9.5 (IFC [B] 1028.9.5) ~~**Assembly aisle termination**~~ **Dead end aisles.** Each end of an aisle shall ~~terminate~~ be continuous to a ~~at~~ cross aisle, foyer, doorway, vomitory or concourse having access to an exit.

Exceptions:

1. Dead-end aisles shall not be greater than 20 feet (6096 mm) in length.
2. Dead-end aisles longer than 20 feet (6096 mm) are permitted where seats beyond the 20-foot (6096 mm) dead-end aisle are no more than 24 seats from another aisle, measured along a row of seats having a minimum clear width of 12 inches (305 mm) plus 0.6 inch (15.2 mm) for each additional seat above seven in the row.
3. For smoke-protected assembly seating, the dead-end aisle length of vertical aisles shall not exceed a distance of 21 rows.
4. For smoke-protected assembly seating, a longer dead-end aisle is permitted where seats beyond the 21-row dead-end aisle are not more than 40 seats from another aisle, measured along a row of seats having an aisle accessway with a minimum clear width of 12 inches (305 mm) plus 0.3 inch (7.6 mm) for each additional seat above seven in the row.

1028.9.6 (IFC [B] 1028.9.6) Aisle measurement. The clear width for aisles shall be measured to walls, edges of seating and tread edges except for permitted projections.

Exception: The clear width of aisles adjacent to seating at table shall be permitted to be measured in accordance with 1028.10.1

~~**1028.9.6**~~ **1028.9.6.1 (IFC [B]** ~~**1028.9.6**~~ **1028.9.6.1) Assembly aisle obstructions.** There shall be no obstructions in the required width of aisles ~~except for handrails as provided in Section 1028.13~~.

Exception: Handrails are permitted to project into the required width of aisle stairs and ramped aisles in accordance with Section 1012.8.

1028.9.7 (IFC [B] 1028.9.7) Construction: All aisles, aisle stairs and ramped aisles shall be built of materials consistent with the types permitted for the type of construction of the building.
Exception: Wood handrails shall be permitted for all types of construction.

1028.9.7.1 (IFC [B] 1028.9.7.1) Walking surface. The surface of aisles, aisle stairs and ramped aisles shall be of slip-resistant materials that are securely attached. In addition, the surface for aisle stairs shall comply with Section 1009.9.1.

1028.9.7.2 (IFC [B] 1028.9.7.2) Outdoor conditions. Outdoor aisles, aisle stairs and ramped aisles and outdoor approaches to aisles, aisle stairs and ramped aisles shall be designed so that water will not accumulate on the walking surface.

1028.10 (IFC [B] 1028.10) Aisle accessways. Aisle accessways for seating at tables shall comply with Section 1028.10.1. Aisle accessways for seating in rows shall comply with Section 1028.10.2.

1028.10.1 (IFC [B] 1028.10.1) Seating at tables. Where seating is located at a table or counter and is adjacent to an aisle or aisle accessway, the measurement of required clear width of the aisle or aisle accessway shall be made to a line 19 inches (483 mm) away from and parallel to the edge of the table or counter. The 19-inch (483 mm) distance shall be measured perpendicular to the side of the table or counter. In the case of other side boundaries for aisle or aisle accessways, the clear width shall be measured to walls, edges of seating and tread edges, ~~except that handrail projections are permitted~~.

Exception: Where tables or counters are served by fixed seats, the width of the aisles or aisle accessway shall be measured from the back of the seat.

1028.10.2.2 (IFC [B] 1028.10.2.2) Single access. For rows of seating served by an aisle or doorway at only one end of the row, the minimum clear width of 12 inches (305 mm) between rows shall be increased by 0.6 inch (15.2 mm) for every additional seat beyond seven seats, but the minimum clear width is not required to exceed 22 inches (559 mm).

> **Exception:** For smoke-protected assembly seating, the row length limits for a 12-inch-wide (305 mm) aisle accessway, beyond which the aisle accessway minimum clear width shall be increased, are in Table 1028.10.2.1.

1028.11 (IFC [B] 1028.11) Assembly aisle walking surfaces. Ramped aisles shall comply with 1028.11.1 through 1028.11.1.3. Aisle stairways shall comply with Section 1028.11.2 through 1028.11.2.4.

1028.11.1 (IFC [B] 1028.11.1) Ramped aisles. Aisles that are sloped more than one unit vertical in 20 horizontal (5 percent slope) shall be considered a ramped aisle. Ramped aisle that serve as part of an accessible route in accordance with Sections 1007 and 1108.2 shall have a maximum slope of one unit vertical in 12 horizontal (8 percent). The slope of other ramped aisles ~~with a slope~~ shall not exceeding one unit vertical in 8 units horizontal (12.5-percent slope) ~~shall consist of a~~ ~~having a slip-resistant walking surface~~.

1028.11.1.1 (IFC [B] 1028.11.1.1) Cross slope. The slope measured perpendicular to the direction of travel of a ramped aisle shall not be steeper than one unit vertical in 48 units horizontal (2-percent slope).

1028.11.1.2 (IFC [B] 1028.11.1.2) Landings. Ramped aisles shall have landings in accordance with Section 1010.7 through 1010.7.5. Landings for ramped aisles shall be permitted to overlap required aisle or cross aisles.

1028.11.1.3 (IFC [B] 1028.11.1.3) Edge protection. Ramped aisles shall have edge protection in accordance with Section 1010.10 and 1010.10.1.

> **Exception:** In assembly spaces with fixed seating, edge protection is not required on the sides of ramped aisles where the ramped aisles provide access to the adjacent seating and aisle accessways.

1028.11.2 (IFC [B] 1028.11.2) Aisle stairs. Aisles with a slope exceeding one unit vertical in eight units horizontal (12.5-percent slope) shall consist of a series of risers and treads that extends across the full width of aisles and complies with Sections 1028.11.2.1 through 1028.11.~~3~~2.4.

1028.11.2.1 (IFC [B] 1028.11.2.1) Treads. *(no change)*

1028.11.2.2 (IFC [B] 1028.11.2.2) Risers. *(no change)*

1028.11.2.3 (IFC [B] 1028.11.2.3) Tread contrasting marking stripe. *(no change)*

1028.11.2.4 (IFC [B] 1028.11.2.4) Nosing and profile. Nosing and riser profile shall comply with Sections 1009.7.5 through 1009.7.5.3.

1028.12 (IFC [B] 1028.12) Seat stability. *(no change)*

1028.13 (IFC [B] 1028.13) Handrails. Ramped aisles having a slope exceeding one unit vertical in 15 units horizontal (6.7-percent slope) and aisle stairs shall be provided with handrails in compliance with Section 1012 located either at one or both sides of the aisle or within the aisle width.

> **Exceptions:**
>
> 1. Handrails are not required for ramped aisles ~~having a gradient no greater than one unit vertical in eight units horizontal (12.5-percent slope) and~~ seating on both sides.

2. Handrails are not required if, at the side of the aisle, there is a guard with a top surface that complies with the graspability requirements of handrails in accordance with Section 1012.3.
3. Handrail extensions are not required at the top and bottom of aisle stair and ~~aisle ramp~~ ramped aisle runs to permit crossovers within the aisles.

1028.13.1 (IFC [B] 1028.13.1) Discontinuous handrails. Where there is seating on both sides of the aisle, the handrails shall be discontinuous with gaps or breaks at intervals not exceeding five rows to facilitate access to seating and to permit crossing from one side of the aisle to the other. These gaps or breaks shall have a clear width of at least 22 inches (559 mm) and not greater than 36 inches (914 mm), measured horizontally, and the handrail shall have rounded terminations or bends.

1028.13.2 (IFC [B] 1028.13.2) ~~Intermediate hand~~rails. Where handrails are provided in the middle of aisle stairs, there shall be an additional ~~intermediate hand~~rail located approximately 12 inches (305 mm) below the main handrail. The rail shall be adequate in strength and attachment in accordance with Section 1607.8.1.2.

1028.14 (IFC [B] 1028.14) Assembly guards. Guards adjacent to seating in a building, room or space used for assembly purposes shall comply with Section 1013 except where permitted by Sections 1028.14.1 through 1028.14.3.

1028.14.1 (IFC [B] 1028.14.1) Cross aisles. Cross aisles located more than 30 inches (762 mm) above the floor or grade below shall have guards in accordance with Section 1013.

Where an elevation change of 30 inches (762 mm) or less occurs between a cross aisle and the adjacent floor or grade below, guards not less than 26 inches (660 mm) above the aisle floor shall be provided.

Exception: Where the backs of seats on the front of the cross aisle project 24 inches (610 mm) or more above the adjacent floor of the aisle, a guard need not be provided.

1028.14.2 (IFC [B] 1028.14.2) Sightline-constrained guard heights. Unless subject to the requirements of Section 1028.14.3, a fascia or railing system in accordance with the guard requirements of Section 1013 and having a minimum height of 26 inches (660 mm) shall be provided where the floor or footboard elevation is more than 30 inches (762 mm) above the floor or grade below and the fascia or railing would otherwise interfere with the sightlines of immediately adjacent seating. At bleachers, a guard must be provided where required by ICC 300.

Exception: The height of the guard in front of seating shall be measured from the adjacent walking surface.

1028.14.3 (IFC [B] 1028.14.3) Guards at the end of aisles. A fascia or railing system complying with the guard requirements of Section 1013 shall be provided for the full width of the aisle where the foot of the aisle is more than 30 inches (762 mm) above the floor or grade below. The fascia or railing shall be a minimum of 36 inches (914 mm) high and shall provide a minimum 42 inches (1067 mm) measured diagonally between the top of the rail and the nosing of the nearest tread.

SECTION 1007 (IFC [B] 1007)
ACCESSIBLE MEANS OF EGRESS

1007.1 (IFC [B] 1007.1) Accessible means of egress required. Accessible means of egress shall comply with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress are required by Section 1015.1 or 1021.1 from any accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress.

Exceptions:

1. Accessible means of egress are not required in alterations to existing buildings.
2. One accessible means of egress is required from an accessible mezzanine level in accordance with Section 1007.3, 1007.4 or 1007.5.
3. In assembly areas with ~~sloped~~ ramped aisles or ~~stepped aisles~~ aisle stairs, one accessible means of egress is permitted where the common path of travel is accessible and meets the requirements in Section 1028.8.

Reason: This proposal is submitted by the ICC Building Code Action Committee (BCAC) The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 3 open meetings and over 15 workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: http://www.iccsafe.org/cs/BCAC/Pages/default.aspx.

The purposes of this change are the following:

- To refer to Section 1028 for aisles, aisle stairs and ramped aisles within assembly seating areas. The current text often bounces back and forth between aisle provisions and general requirements for ramps and stairways. Assembly aisles have their own section because they are a unique configuration and some different safety concerns.
- To consistently use the terms aisles, aisle stairs and ramped aisles throughout Chapter 10. The current text is inconsistent, even within Section 1028.
- To make the provisions found in 1009 (stairways), 1010 (ramps) and 1028 (aisles – level, ramped and stepped) consistent in content and references.
- To make handrail and guard requirements equally applicable to stairways, ramps and aisles (level, ramped and stepped) unless specifically addressed (i.e. center handrails on aisle stairs and guards at the front of balconies).

Stairways and ramps, as well as other means of egress, not within the seating area, will continue to be addressed in their appropriate section throughout Chapter 10.

To be more specific by section:

- 1007.1 – be consistent throughout the code using the terms 'ramped aisles' and 'aisle stairs'
- 1009 – by sending the code user to 1028 in 1009.1 at the beginning of stairways for the unique requirements for 'aisle stairs', there is no need for exceptions throughout 1009. (There is a separate change to address the situation where aisle stairs transition directly to stairways without cross aisles or landings)
- 1009.16 (new) – guards are referenced for ramps and aisles; therefore for consistency they should be referenced for stairways.
- 1010 – the same as with stairways, by sending the user to 1028 in 1010.1 at the beginning of ramps for the unique requirements for 'ramped aisles', there is no need for exceptions throughout 1010. The ramped aisles that serve as part of the accessible route within the seating area are addressed in 1028, there is no need to separate them.
- 1012 and 1013 – aisle stairs and ramped aisles will reference the provisions for handrails and guards the same as stairways and ramps. Revisions are for coordination with 1028.13 and 1028.14.
- 1028.9 - the sentence has been relocated to new 1028.9.6
- 1028.9.6 and 1028.9.7 (new) – are adding provisions for aisle stairs and ramped aisles that are consistent with current requirements for stairways and ramps for measurement and construction
- 1028.11 – the current 1028.11 addresses the walking surface for both ramped aisles and aisle stairs in one section, but not as completely as ramps and stairways. The new sections 1028.11 through 1028.11.2.4 both coordinate and clarify requirements for walking surfaces.
- 1028.13 (handrails) and 1028.14 (guards) are coordinated with 1012 (handrails) and (1013) guards.

The BCAC has code changes in dealing with aisles in 1005, 1009, 1017 and 1028 as well as a transition between aisle stairs and stairways. The intent is for all four proposals to correlate; however this change can stand by itself.

Cost Impact: This code change proposal will not increase the cost of construction.

E87-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

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E88-12

1009.1, 1009.4, 1009.7.2, 1009.7.4, 1009.8, 1009.10, 1009.15 (IFC [B] 1009.1, 1009.4, 1009.7.2, 1009.7.4, 1009.8, 1009.10, 1009.15)

Proponent: S. Bajnai, Chesterfield County, VA, ICC Building Code Action Committee

Revise as follows:

SECTION 1009 (IFC [B] 1009)
STAIRWAYS

1009.1 (IFC [B] 1009.1) General. Stairways serving occupied portions of a building shall comply with the requirements of this section.

> **Exception:** Within rooms or spaces used for assembly purposes, aisle stairs shall comply with Section 1028.

1009.4 (IFC [B] 1009.4) Width. The width of stairways shall be determined as specified in Section 1005.1, but such width shall not be less than 44 inches (1118 mm). See Section 1007.3 for accessible means of egress stairways.

Exceptions:

1. Stairways serving an occupant load of less than 50 shall have a width of not less than 36 inches (914 mm).
2. Spiral stairways as provided for in Section 1009.12.
3. ~~Aisle stairs complying with Section 1028.~~
3~~4.~~ Where an incline platform lift or stairway chairlift is installed on stairways serving occupancies in Group R-3, or within dwelling units in occupancies in Group R-2, a clear passage width not less than 20 inches (508 mm) shall be provided. If the seat and platform can be folded when not in use, the distance shall be measured from the folded position.

1009.7 (IFC [B] 1009.7) Stair treads and risers. Stair treads and risers shall comply with Sections 1009.7.1 through 1009.7.5.3.

1009.7.2 (IFC [B] 1009.7.2) Riser height and tread depth. Stair riser heights shall be 7 inches (178 mm) maximum and 4 inches (102 mm) minimum. The riser height shall be measured vertically between the nosings of adjacent treads. Rectangular tread depths shall be 11 inches (279 mm) minimum measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's nosing. Winder treads shall have a minimum tread depth of 11 inches (279 mm) between the vertical planes of the foremost projection of adjacent treads at the intersections with the walkline and a minimum tread depth of 10 inches (254 mm) within the clear width of the stair.

Exceptions:

1. Alternating tread devices in accordance with Section 1009.13.
2. Ship ladders in accordance with Section 1009.14.
3. Spiral stairways in accordance with Section 1009.12.
4. ~~Aisle stairs in assembly seating areas where the stair pitch or slope is set, for sightline reasons, by the slope of the adjacent seating area in accordance with Section 1028.11.2.~~ Stairways connecting aisle stairs to cross aisles or concourses shall be permitted to use the riser/tread dimension in Section 1028.11.1.
4~~5~~. In Group R-3 occupancies; within dwelling units in Group R-2 occupancies; and in Group U occupancies that are accessory to a Group R-3 occupancy or accessory to individual dwelling units in Group R-2 occupancies; the maximum riser height shall be 7 ¾ inches (197 mm); the

minimum tread depth shall be 10 inches (254 mm); the minimum winder tread depth at the walkline shall be 10 inches (254 mm); and the minimum winder tread depth shall be 6 inches (152 mm). A nosing projection not less than ¾ inch (19.1 mm) but not more than 1 ¼ inches (32 mm) shall be provided on stairways with solid risers where the tread depth is less than 11 inches (279 mm).

5~~6~~. See Section 3404.1 for the replacement of existing stairways.

6~~7~~. In Group I-3 facilities, stairways providing access to guard towers, observation stations and control rooms, not more than 250 square feet (23 m^2) in area, shall be permitted to have a maximum riser height of 8 inches (203 mm) and a minimum tread depth of 9 inches (229 mm).

1009.7.4 (IFC [B] 1009.7.4) Dimensional uniformity. Stair treads and risers shall be of uniform size and shape. The tolerance between the largest and smallest riser height or between the largest and smallest tread depth shall not exceed 3/8 inch (9.5 mm)in any flight of stairs. The greatest winder tread depth at the walk line within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).

Exceptions:

1. ~~Nonuniform riser dimensions of aisle stairs complying with Section 1028.11.2.~~ Stairways connecting aisle stairs to cross aisles or concourses shall be permitted to comply with the dimensional non-uniformity in Section 1028.11.2.
2. Consistently shaped winders, complying with Section 1009.7, differing from rectangular treads in the same stairway flight.

Where the bottom or top riser adjoins a sloping public way, walkway or driveway having an established grade and serving as a landing, the bottom or top riser is permitted to be reduced along the slope to less than 4 inches (102 mm) in height, with the variation in height of the bottom or top riser not to exceed one unit vertical in 12 units horizontal (8-percent slope) of stairway width. The nosings or leading edges of treads at such nonuniform height risers shall have a distinctive marking stripe, different from any other nosing marking provided on the stair flight. The distinctive marking stripe shall be visible in descent of the stair and shall have a slip-resistant surface. Marking stripes shall have a width of at least 1 inch (25 mm) but not more than 2 inches (51 mm).

1009.8 (IFC [B] 1009.8) Stairway landings. There shall be a floor or landing at the top and bottom of each stairway. The width of landings shall not be less than the width of stairways they serve. Every landing shall have a minimum width measured perpendicular to in the direction of travel equal to the width of the stairway. Where the stairway has a straight run the depth need not exceed 48 inches (1219 mm). Doors opening onto a landing shall not reduce the landing to less than one-half the required width. When fully open, the door shall not project more than 7 inches (178 mm) into a landing. When wheelchair spaces are required on the stairway landing in accordance with Section 1007.6.1, the wheelchair space shall not be located in the required width of the landing and doors shall not swing over the wheelchair spaces.

Exception: ~~Aisle stairs complying with Section 1028.~~ Where stairways connect aisle stairs to cross aisles or concourses, stairway landings are not required at the transition between stairways and aisle stairs constructed in accordance with Section 1028.

1009.10 (IFC [B] 1009.10) Vertical rise. A flight of stairs shall not have a vertical rise greater than 12 feet (3658 mm) between floor levels or landings.

Exceptions:

~~1. Aisle stairs complying with Section 1028~~.

1.~~2.~~ Alternating tread devices used as a means of egress shall not have a rise greater than 20 feet (6096 mm) between floor levels or landings.

2.~~3.~~ Spiral stairways used as a means of egress from technical production areas.

1009.15 (IFC [B] 1009.15) Handrails. Stairways shall have handrails on each side and shall comply with Section 1012. Where glass is used to provide the handrail, the handrail shall also comply with Section 2407.

Exceptions:

1. ~~Handrails for aisle stairs provided in accordance with Section 1028.13.~~
1~~2.~~ Stairways within dwelling units, and spiral stairways are permitted to have a handrail on one side only.
2~~3.~~ Decks, patios and walkways that have a single change in elevation where the landing depth on each side of the change of elevation is greater than what is required for a landing do not require handrails.
3~~4.~~ In Group R-3 occupancies, a change in elevation consisting of a single riser at an entrance or egress door does not require handrails.
4~~5.~~ Changes in room elevations of three or fewer risers within dwelling units and sleeping units in Group R-2 and R-3 do not require handrails.

Reason: This proposal is submitted by the ICC Building Code Action Committee (BCAC) The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 3 open meetings and over 15 workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: http://www.iccsafe.org/cs/BCAC/Pages/default.aspx.

There are limited situations where aisle stairways transition directly to a stairway without first reaching a cross aisle or standard landing. Some examples are illustrated below. In these situations, to limit the chance of someone tripping at the transition, the specific exceptions for tread and riser dimensions (1009.7.2), dimensional uniformity (1009.7.4) and landings (1009.10) should be permitted in order to keep a consistent flight as occupants moved from aisle stair to stairway.

It is the intent of this code change to work in conjunction with the provisions to separate aisle stairs from stairways and ramped aisles from ramps in another proposal from this committee. BCAC has code changes in dealing with aisles in 1005, 1009, 1017 and 1028 as well as a transition between aisle stairs and stairways. The intent is for all four proposals to correlate; however this change can stand by itself.

C1

C1

D1

D1

E2

E2

Cost Impact: This code change proposal will not increase the cost of construction.

E88-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

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E89 – 12
1009.3 (IFC [B] 1009.3)

Proponent: Maureen Traxler, City of Seattle Dept of Planning & Development, representing City of Seattle Dept of Planning & Development (maureen.traxler@seattle.gov)

Revise as follows:

1009.3 (IFC [B] 1009.3) Exit access stairways. Floor openings between stories created by exit access stairways shall be enclosed.

Exceptions:

1. In other than Group I-2 and I-3 occupancies, exit access stairways that serve, or atmospherically communicate between, only two stories, are not required to be enclosed.
2. Exit access stairways serving and contained within a single residential dwelling unit or sleeping unit in Group R-1, R-2 or R-3 occupancies are not required to be enclosed.
3. In ~~buildings with only~~ Group B or M occupancies, exit access stairway openings are not required to be enclosed provided that the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the area of the floor opening between stories does not exceed twice the horizontal projected area of the exit access stairway, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.
4. In other than Groups B and M occupancies, exit access stairway openings are not required to be enclosed provided that the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the floor opening does not connect more than four stories, the area of the floor opening between stories does not exceed twice the horizontal projected area of the exit access stairway, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.
5. Exit access stairways within an atrium complying with the provisions of Section 404 are not required to be enclosed.
6. Exit access stairways and ramps in open parking garages that serve only the parking garage are not required to be enclosed.
7. Stairways serving outdoor facilities where all portions of the means of egress are essentially open to the outside are not required to be enclosed.
8. Exit access stairways serving stages, platforms and technical production areas in accordance with Sections 410.6.2 and 410.6.3 are not required to be enclosed.
9. Stairways are permitted to be open between the balcony, gallery or press box and the main assembly floor in occupancies such as theaters, places of religious worship, auditoriums and sports facilities.
10. In Group I-3 occupancies, exit access stairways constructed in accordance with Section 408.5 are not required to be enclosed.

Reason: We believe an inadvertent change to Section 1009.3 exception 3 was made by E5-09/10. In the 2009 IBC, Section 708.2 Exception 2.1 allowed this condition in Group B or M occupancies as proposed here. The language of the 2012 IBC is too restrictive. There are many buildings that include more than just a B or M occupancy. If the proper separation, areas, etc. are followed, this exception should be allowable for mixed use buildings, as this exception has qualifications that have to be met before this can be used. In addition, Exception #4 says: "In other than Group B and M occupancies …" **not** "In *buildings* with other than……..." which seems to imply that this was the intent of Exception #3 too.

Cost Impact: The code change proposal will not increase the cost of construction.

E89-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

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E90 – 12
1009.3 (IFC [B] 1009.3)

Proponent: Robert J Davidson, Davidson Code Concepts LLC, representing self (rjd@davidsoncodeconcepts.com)

Revise as follows:

1009.3 (IFC [B] 1009.3) Exit access stairways. Floor openings between stories created by exit access stairways shall be enclosed.

Exceptions:

1. In other than Group I-2 and I-3 occupancies, exit access stairways that serve, or atmospherically communicate between, only two stories, are not required to be enclosed.
2. Exit access stairways serving and contained within a single residential dwelling unit or sleeping unit in Group R-1, R-2 or R-3 occupancies are not required to be enclosed.
3. In buildings with only Group B or M occupancies, exit access stairway openings are not required to be enclosed provided that the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the area of the floor opening between stories does not exceed twice the horizontal projected area of the exit access stairway, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.
4. ~~In other than Groups B and M occupancies, exit access stairway openings are not required to be enclosed provided that the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the floor opening does not connect more than four stories, the area of the floor opening between stories does not exceed twice the horizontal projected area of the exit access stairway, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.~~

4~~5~~. Exit access stairways within an atrium complying with the provisions of Section 404 are not required to be enclosed.

5~~6.~~ Exit access stairways and ramps in open parking garages that serve only the parking garage are not required to be enclosed.

6~~7~~. Stairways serving outdoor facilities where all portions of the means of egress are essentially open to the outside are not required to be enclosed.

7~~8~~. Exit access stairways serving stages, platforms and technical production areas in accordance with Sections 410.6.2 and 410.6.3 are not required to be enclosed.

8~~9.~~ Stairways are permitted to be open between the balcony, gallery or press box and the main assembly floor in occupancies such as theaters, places of religious worship, auditoriums and sports facilities.

9~~10~~.In Group I-3 occupancies, exit access stairways constructed in accordance with Section 408.5 are not required to be enclosed.

Reason: The purpose of this code change is to delete the allowance for connecting up to four stories with an unenclosed exit access stairway. This language is the result of a re-write of code language last cycle that was purported to be editorial in nature. When I attempted to point out this change was expanding allowance of the connection of four stories in testimony at the final action hearings I was repeatedly interrupted by the supporters of the proposal and in their testimony they denied there was a change or increase in the allowance for interconnecting floor levels.

If you review the previous language found in the 2009 IBC at Section 708.2, Exception 2 you will find that this allowance did not permit a stairway **that was a portion of the means of egress** to be unenclosed under this concept. Since an "extra" stairway not need for, nor allowed to be considered a portion of the means of egress, would be an added cost that used up valuable square footage, this application of the code was rare. (That is if in fact it was done as provided for by the code and no credit for egress including travel distance was taken)

2009 International Building Code

708.2 Shaft enclosure required. Openings through a floor/ceiling assembly shall be protected by a shaft enclosure complying with this section.

Exceptions:

2. A shaft enclosure is not required in a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 for an escalator opening or **stairway that is not a portion of the means of egress** protected according to Item 2.1 or 2.2.
   2.1. Where the area of the floor opening between stories does not exceed twice the horizontal projected area of the escalator or stairway and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13. In other than Groups B and M, this application is limited to openings that do not connect more than four stories .

With the revised language the code now allows unenclosed "exit access stairways" to connect up to four stories of a building. This is a major technical change; it allows the use of unenclosed stairways that ARE part of the means of egress. The purpose of adding the term "exit access stairway" to the code was to provide for recognition of the stairs for use in exit access provided the travel distance was measured. See 2012 IBC, Section 1016.3.1 below. So we find that the change was not just editorial, it was a significant reduction in safety provided from the spread of smoke or heat.

2012 International Building Code

1016.3.1 Exit access stairways and ramps. Travel distance on exit access stairways or ramps shall be included in the exit access travel distance measurement. The measurement along stairways shall be made on a plane parallel and tangent to the stair tread nosings in the center of the stair and landings. The measurement along ramps shall be made on the walking surface in the center of the ramp and landings.

The problem with this section is not just a matter of increased allowances from one edition to another contrary to presentation. The section in question, 2012 IBC, Section 1009.3 Exception 4, is in direct conflict with the "atrium" provisions of Section 404.1 wherein additional fire protection features are required when we have an atrium, which is defined as an opening connecting two or more stories "other than enclosed stairways"… etc. Actually, if you apply the allowance for connecting floor levels with unenclosed stairs, you currently have an atrium by definition and design both in the older edition of the code and the present edition. Also note that there is no qualifier as to the size of an opening when dealing with atriums. It is just recognition that we have an opening that can allow the upward travel of smoke and heat due to the lack of an enclosing shaft.

SECTION 404
ATRIUMS

404.1 General. In other than Group H occupancies, and where permitted by Section 712.1.6, the provisions of Sections 404.1 through 404.9 shall apply to buildings or structures containing vertical openings defined as "Atriums."

ATRIUM. An opening connecting two or more stories other than enclosed stairways, elevators, hoistways, escalators, plumbing, electrical, air-conditioning or other equipment, which is closed at the top and not defined as a mall. Stories, as used in this definition, do not include balconies within assembly groups or mezzanines that comply with Section 505.

Now objectors may argue that this is a matter of two different features, but a plain reading of the definition of an atrium and recognition of why we add fire protection features regardless of the size of the atrium clearly identifies that there is no difference. Whether I have a large atria with an open stairway in the middle, or a small atria with a stairway up through it does not change the fact that it is a path upward for smoke and heat. Since the atrium and the unenclosed exit access stairs present the same hazard, upward travel of smoke and heat, why such a major difference in the required fire protection features?

The new language is a major change from the last edition of the code, contrary to how it was presented to the committee and the membership, it allows a means of egress path where you might be traveling down into the smoke and/or heat, and it is in conflict with long recognized protection features for atriums, i.e, unenclosed holes in floor/ceiling assemblies,

Cost Impact: The code change proposal will increase the cost of construction.

E90-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1009.3-E-Davidson.doc

E91 – 12

1009.6, 1009.8, 1009.8.1-1009.8.5(New) [IFC [B] 1009.6, 1009.8, 1009.8.1-1009.8.5(New)]

Proponent: David W. Cooper, Stairway Manufacturing and Design Consultants representing Stairway Manufacturers' Association (sma@stairways.org)

Revise as follows:

1009.6 (IFC [B] 1009.6) Walkline. The walkline across *winder* treads and landings shall be ~~concentric~~ parallel to the direction of travel and concentric through the turn. The walkline shall be ~~and~~ located 12 inches (305 mm) from the side where the *winders* are narrower or from the side of shortest distance through the turn at a landing. The 12-inch (305 mm) dimension shall be measured from the widest point of the clear ~~*stair*~~ width at the walking surface ~~of the *winder*~~. If *winders* are adjacent within the *flight*, the point of the widest clear *stair* width of the adjacent *winders* shall be used.

1009.8 (IFC [B] 1009.8) Stairway landings. There shall be a floor or landing at the top and bottom of each ~~*stairway*~~ *flight of stairs*. ~~The width of landings shall not be less than the width of *stairways* they serve. Every landing shall have a minimum width measured perpendicular to the direction of travel equal to the width of the *stairway*. Where the *stairway* has a straight run the depth need not exceed 48 inches (1219 mm). Doors opening onto a landing shall not reduce the landing to less than one-half the required width. When fully open, the door shall not project more than 7 inches (178 mm) into a landing. When *wheelchair spaces* are required on the *stairway* landing in accordance with Section 1007.6.1, the *wheelchair space* shall not be located in the required width of the landing and doors shall not swing over the *wheelchair spaces*.~~

Exception: *Aisle stairs* complying with Section 1028.

1009.8.1 (IFC [B] 1009.8.1) Stairway landing width. The minimum width of landings shall be not less than the required width of the stairway. Every landing shall have a width at the top and bottom of each flight no less than the width of the *flight* at the junction with the landing. The minimum width of a landing at any point shall be not less than the width of the narrowest flight served as measured perpendicular to the walkline.

1009.8.2 (IFC [B] 1009.8.2) Stairway landing depth. At landings of straight run stairways and at stairway landing turns of 90 degrees or less between adjoining flights, the minimum landing depth shall be not less than the smaller of the minimum landing width or the value from Table 1009.8.2. Landings shall be measured between the vertical planes of the foremost projection of the tread and landing nosings at the intersections with the walkline.

Table 1009.8.2 (IFC [B] Table 1009.8.2)
Landing Depth

Range of stairway turn at landing (degrees)		Minimum Landing Depth	
Greater than	**Less than or Equal to**	**Stairways other than spiral stairways and stairways within dwelling units and sleeping units (inches)**	**Spiral stairways and stairways within dwelling units and sleeping units (inches)**
85	90	21	18
80	85	23	19
75	80	24	20
70	75	26	21
65	70	27	22
60	65	29	23
55	60	30	24
50	55	32	25
45	50	33	26
40	45	35	27
35	40	36	28
30	35	38	29
25	30	39	30
20	25	41	31
15	20	42	32
10	15	44	33
5	10	45	34
0	5	47	35
0	0	48	36

For SI: 1 inch = 25.4 mm

1009.8.3 (IFC [B] 1009.8.3) Stairway landing shape. Walls and guards at the sides of landings shall be permitted to be curved or segmented.

1009.8.4 (IFC [B] 1009.8.4) Obstructions at stairway landings. The required width and depth of landings shall be unobstructed.

Exception: Encroachments complying with Section 1005.7.

1009.8.5 (IFC [B] 1009.8.5) Wheelchair spaces at stairway landings. Where *wheelchair spaces* are located on the *stairway* landing in accordance with Section 1007.6.1, the *wheelchair space* shall not be located in the required width or depth of the landing and doors shall not swing over the *wheelchair spaces*.

Reason: The intent of this proposal is to clarify stairway landing requirements. These provisions are not intended to be applicable to the unique configurations required within assembly seating areas. Those are addressed in Section 1028.

This proposal separates the component requirements of this section, allows a more precise understanding needed for both design and enforcement of required width and depth and provides a needed minimum landing depth requirement. In addition it provides a new requirement for landing shape that has previously been left to interpretation with needed explanation only offered within the code commentaries.

Landing Width: It is not uncommon that the widths of the flights vary within a stairway and the widths of different stairways sharing the same landing at a common floor level also vary. In fact different stairway widths may be required as passenger loads increase in the direction of egress. The current language is ambiguous as it does not clearly state what "The" width is when there is more than one stairway width or flight width at a landing.

Landing Depth is as critical as tread depth: Just as critical to good stairway design as tread depth is the depth of the landing. Landings should be designed to allow enough space to turn. Likewise and as the turning diminishes the landing should be of sufficient depth to prevent over stepping. Currently the code confuses landing depth as an element of its width without a specific depth requirement. The only specific reference to landing depth within this section serves to establish a "need not exceed dimension" of 48 inches (36 inches residential) for stairways with a straight run. Landing depth is especially critical at stairway landings that turn less than 90 degrees. Landing turns that are greater than 90 degrees are not addressed in this proposal because sufficient landing depth is provided by nature of the geometry. The intent of this proposal is not to increase the depth required at

landings by the most common interpretations of the current code but to provide a clear application of the concept of landing depth at the walkline as experienced by the user. This proposal clarifies the current rectilinear requirements and provides a design solution that works regardless of the shape of the landing.

The Walkline can be used to regulate landing Depth: In order to regulate landing depth at the walkline, 1009.6 *Walkline*, has been modified to include landings. The modification recognizes that the walkline has both straight elements that are parallel and curved elements that are concentric and relates the walkline to both winders and landings. The walkline is referenced in a new landing depth section and a relationship is provided for controlling the depth of a landing where flights meet. The measuring criteria for landing depth is congruous with the criteria for measuring tread depth as found in 1009.7.2 *Riser height and tread depth*.

As illustrated in Figures 1 - 10 this proposal requires the landing depth increase as the angle of the turn diminishes to prevent overstepping of the landing and allow the space required to negotiate the turn. This correlates with the 48 inch "need not to exceed" depth of landings specified for stairways with straight runs currently in the code. Figure 1 and 6 shows a minimal 90 degree landing as built in accordance with the code. The landing in figure 1 has the minimum dimension necessary to provide for the continuous handrail connection as required in **1012.6 *Handrail extensions***. The minimum landing currently possible has a depth at the walkline as shown of 21 inches and is the minimum allowed by this proposal for a landing turn of 90 degrees. Since the code currently has a "need not exceed limit" of 48 inches applicable to the condition where the stairway is straight run a simple linear relationship between these two conditions allows for calculation of the data in **Table 1** increasing the landing depth by a constant increment as the turning decreases . Figures 2-5 clearly illustrate examples from the table.

Figure 6 shows a typical residential landing and figures 7-10 again illustrate examples from the table and the incremental increase needed for both spiral stairways and residential applications.

It should be noted that this proposal further provides a viable landing depth whether or not the adjoining flights are curved as it is related to the degree of turning only at the landing of the stairway.

Minimum Landing Depth: If the landing depth, determined from the table, exceeds the minimum stairway width then the minimum stairway width shall be the minimum landing depth. If the stairway width exceeds the landing depth from the table then the landing depth from the table is the minimum landing depth.

Spiral stairways and stairways with in dwelling units: Figures 5-10 illustrate the landing conditions for stairways within dwelling units and spiral stairways and coordinates closely with the 2012 IRC. It allows a smaller 90 degree value of 18 inches where section **1012.6** ***Handrail Extensions*** does not apply and correlates the incremental increase in depth with the minimum depth of 36 inches for residential stairways with a straight run. Particularly in residential applications this proposal helps to define the difference between a landing and a winder.

Landing Shape: The shape of landings is not regulated in the code and is sometimes interpreted to permit only rectangular shapes. Clearly landings take different shapes dependent upon the angle at which flights meet. The unused outside corner of landings that is beyond the width measured perpendicular to the direction of travel is not needed for egress. Although this is explained in the ICC commentaries this proposal incorporates a new section titled landing shape to provide for consistent interpretation and enforcement.

Doors and Wheelchair Space at Landings: The language for obstructions has been updated to reference 1005.7. The requirements are the same, but the new language would be consistent with text in aisle, corridors and exit passageways. The language for wheelchair spaces is existing.

Cost Impact: This will not affect the cost of construction.

E91-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1009.6-E-Coooper.doc

E92 – 12
1009.7.4 (IFC [B] 1009.7.4)

Proponent: David W. Cooper , Stairway Manufacturing and Design Consultants representing Stairway Manufacturers' Association (sma@stairways.org)

Revise as follows:

1009.7.4 (IFC [B] 1009.7.4) Dimensional uniformity. *Stair* treads and risers shall be of uniform size and shape. The tolerance between the largest and smallest riser height or between the largest and smallest tread depth shall not exceed 3/8 inch (9.5 mm) in any *flight* of *stairs*. The greatest *winder* tread depth at the walkline within any *flight* of *stairs* shall not exceed the smallest by more than 3/8 inch (9.5 mm).

Exceptions:

1. Nonuniform riser dimensions of *aisle stairs* complying with Section 1028.11.2.
2. Consistently shaped *winders*, complying with Section 1009.7, differing from rectangular treads in the same *stairway flight*.
3. Nonuniform riser dimension complying with Section 1009.7.4.1.

1009.7.4.1 (IFC [B] 1009.7.4.1) Nonuniform height risers. Where the bottom or top riser adjoins a sloping *public way*, walkway or driveway having an established grade and serving as a landing, the bottom or top riser is permitted to be reduced along the slope to less than 4 inches (102 mm) in height, with the variation in height of the bottom or top riser not to exceed one unit vertical in 12 units horizontal (8-percent slope) of *stairway* width. The *nosings* or leading edges of treads at such nonuniform height risers shall have a distinctive marking stripe, different from any other *nosing* marking provided on the *stair flight*. The distinctive marking stripe shall be visible in descent of the *stair* and shall have a slip-resistant surface. Marking stripes shall have a width of at least 1 inch (25 mm) but not more than 2 inches (51 mm).

Reason: Editorial

Cost Impact: This will not affect the cost of construction

E92-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1009.7.4-E-Cooper.doc

E93 – 12
1009.7.5 (IFC [B] 1009.7.5)

Proponent: David W. Cooper, Stairway Manufacturing and Design Consultants representing Stairway Manufacturers' Association (sma@stairways.org)

Revise as follows:

1009.7.5 (IFC [B] 1009.7.5) Nosing and riser profile. ~~The radius of curvature at the leading edge of the tread shall be not greater than 9/16 inch (14.3 mm).~~ ~~Beveling of *nosings*~~ *Nosings* shall have a curvature or bevel of not less than 1/8 inch (3.2 mm) but not more than 9/16 inch (14.3 mm) from the foremost projection of the tread. Risers shall be solid and vertical or sloped under the tread above from the underside of the *nosing* above at an angle not more than 30 degrees (0.52 rad) from the vertical.

Reason: The radius of curvature is not of consequence as a smaller segment of a larger radius can be and is often used as shown in figure 2. The critical factor is to maximize the flat portion of the tread for purchase of the foot in descent.

A curvature or bevel at the nosing makes stairs safer; the nosing is less likely to chip or split due to use and wear, the nosing is not sharp and can reduce injury in a fall, and the change in the surface planes allows for light modeling that provides contrast resulting in improved visibility of the leading edge of the tread both in ascent and descent. For these reasons a minimum curvature or bevel has been added as a new requirement.

The Figures below show that larger radii can be safely allowed by regulating the extent of the curvature in the same way beveling is regulated.

Figure 1

Figure 1 illustrates the maximum radius at the nosing regulated by the current radius dimension

Figure 2

Figure 2 illustrates an alternate curvature or rounding using a radius larger than allowed.

Figure 3

Figure 3 illustrates the maximum beveling in blue in a composite with the nosings of figure 2 and 3.

Cost Impact: This will not affect the cost of construction

E93-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1009.7.5 #1-E-Cooper.doc

E94-12
1009.7.5.3 (IFC [B] 1009.7.5.3)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1009.7.5.3 (IFC [B] 1009.7.5.3) Solid Risers. Risers shall be solid.

Exceptions:

1. Solid risers are not required for *stairways* that serve as the means of egress from areas exempted from accessibility in accordance with Section 1103.2. ~~that are not required to comply with Section 1007.3~~, ~~provided that the opening between treads does not permit the passage of a sphere with a diameter of 4 inches (102 mm).~~
2. Solid risers are not required within Type B or non-accessible dwelling or sleeping units.
3. Means of egress stairways shall be permitted to have openings between treads that do not permit the passage of a sphere with a diameter of 4 inches (102 mm).

~~2~~4. Solid risers are not required for occupancies in Group I-3 or in Group F, H and S occupancies other than areas accessible to the public. ~~There are no restrictions on the size of the opening in the riser.~~

~~3~~5. Solid risers are not required for *spiral stairways* constructed in accordance with Section 1009.12.

~~4~~6. Solid risers are not required for *alternating tread devices* constructed in accordance with Section 1009.13.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

The intent of this proposal is coordination with ADA requirements for solid risers on stairways as well as provide for a more logical and consistent application of solid risers.

The 1991 ADA only scoped stairways that connected levels that did not have an accessible route. The 2010 ADA Standard scopes stairways that are part of a means of egress, not just stairways that are part of an accessible means of egress. Therefore, the current Section 1009.7.5.3, Exception 1 was not coordinated with either the 1991 or 2010 ADA stairway provisions.

If an area is not required to be accessible, the route to that space is also exempted from ADA requirements; therefore, means of egress stairways from these areas are not covered by ADA. IBC Section 1103.2 has similar exceptions for accessible areas. For example, 1103.2.7 exempts areas raised for purposes of life safety, fire safety or security. With the proposed revisions in Section 1009.7.5.3, exception 1, stairways serving these areas are not required to have solid risers.

The new exception 2 would allow open risers on stairways within dwelling units or sleeping units that were covered by ADA (i.e., Accessible units or Type A units). Open risers are a common with stairways that provide access to basements within a residence.

One of the reasons for providing closed risers is to limit the chance that a cane could catch between risers. The 4" maximum opening would limit this as well as meet the 4" opening limits currently in the code for child protection.

Current exception 2 (new exception 4) has the last sentence deleted. This text is not needed, plus it could lead code users to think that other exceptions had size limitations.

Cost Impact: None

E94-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1009.7.5.3-E-BALDASSARRA-CTC.docx

E95 – 12
1009.7.5, 1009.7.5.3 (IFC [B] 1009.7.5, 1009.7.5.3)

Proponent: David W. Cooper / Stairway Manufacturing and Design Consultants / Representing: Stairway Manufacturers' Association (sma@stairways.org)

Revise as follows:

~~**1009.7.5.3 (IFC [B] 1009.7.5.3)**~~ **1009.7.5 (IFC [B] 1009.7.5) Solid Risers.** Risers shall be solid.

Exceptions:

1. Solid risers are not required for stairways that serve as the means of egress from areas exempted from accessibility in accordance with Section 1103.2. ~~are not required to comply with Section 1007.3,~~
2. Solid risers are not required within Type B or non-accessible dwelling or sleeping units provided that the openings between the lower adjacent tread, floor, or landing and the lower edge of the riser that do not permit the passage of a sphere with a diameter of 4 inches (102 mm).
3. Means of egress stairways shall be permitted to have openings between the lower adjacent tread, floor, or landing and the lower edge of the riser that do ~~provided that the opening between treads does~~ not permit the passage of a sphere with a diameter of 4 inches (102 mm).
~~2~~4. Solid risers are not required for occupancies in Group I-3 or in Group F, H and S occupancies other than areas accessible to the public. ~~There are no restrictions on the size of the opening in the riser.~~
~~3~~5. Solid risers are not required for *spiral stairways* constructed in accordance with Section 1009.12.
~~4~~6. Solid risers are not required for *alternating tread devices* constructed in accordance with Section 1009.13.
7. Solid risers are not required for ship ladders constructed in accordance with Section 1009.14

~~**1009.7.5**~~ **1009.7.6 (IFC [B]** ~~**1009.7.5**~~ **1009.7.6) Nosing and riser profile.** The radius of curvature at the leading edge of the tread shall be not greater than 9/16 inch (14.3 mm). Beveling of *nosings* shall not exceed 9/16 inch (14.3 mm). Risers shall be ~~solid and~~ vertical or sloped under the tread above from the underside of the *nosing* above at an angle not more than 30 degrees (0.52 rad) from the vertical.

~~**1009.7.5.1**~~ **1009.7.6.1 (IFC [B]** ~~**1009.7.5.1**~~ **1009.7.6.1) Nosing projection size.** The leading edge (*nosings*) of treads shall project not more than 1 ¼ inches (32 mm) beyond the tread below.

~~**1009.7.5.2**~~ **1009.7.6.2 (IFC [B]** ~~**1009.7.5.2**~~ **1009.7.6.2) Nosing projection uniformity.** All *nosing* projections of the leading edges shall be of uniform size, including the projections of the *nosings* leading edge of the floor at the top of a *flight*.

(Renumber subsequent sections)

Reason: Section **1009.7.5 Nosing and riser profile** is a constant source of controversy and misunderstanding. The reference to solid risers does not belong in the section that describes the profile or outline of a step. Notably masked in exception 1 by double negatives is the requirement for the limitation of openings in risers.

This proposal clarifies the scoping for use of solid risers and coordinates with the new ADA guidelines as outlined by the CTC. **Solid risers**, as a new and separate section subsection of **1009.7 Treads and risers** will appear prior to Nosing and riser profile. This allows easier identification of the opening limitation between treads and adjoining floors or landings that was previously misunderstood or not found. Exceptions 2 and 3 are similar to the CTC's proposal but assures that an opening limitation applies to Type B units as well as egress stairs and also provides that if an opening is used in the riser, it is in the lower portion of the riser height, as shown in **Figure 1**, allowing design options that may provide additional heal clearance in descent and the appropriate design of tread nosings compliant with ADA guidelines that are important in ascent.

It is worth noting that the stairs covered in exception 2 would likely be means of egress stairs and would be covered by exception 3. If the committee wishes to modify this proposal by eliminating exception 2 in its entirety it would seem to work as well with less verbiage.

The out of place reference to solid risers has been eliminated from 1009.7.5 *Nosing and riser profile*. The profile of a stair nosing and riser are aptly described without the misplaced reference to the composition of risers. The content of the exceptions has been moved from 1009.7.5 *Nosing and riser profile* to the new section and coordinated with ADA guidelines.

Exception 7 adds ship ladders that were not previously included but should be as their use is made safer with the additional space for overhang of the toes in both ascent and in the typical backing down descent common to ladder use.

FIGURE 1

Cost Impact: This will not affect the cost of construction

E95-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1009.7.5 #2-E-Cooper.doc

E96 – 12

NUMBER NOT USED

E96-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

E97 – 12
1009.9.4 (IFC [B] 1009.9.4)

Proponent: Robert Trotter, representing Tennessee Code Development Committee (bobtrotter1023@aol.com)

Revise as follows:

1026.7 ~~1009.9.4~~ (IFC [B] 1026.7 ~~1009.9.4)~~ Enclosures under exterior stairways. There shall be no enclosed usable space under exterior exit stairways unless the space is completely enclosed in 1-hour fire-resistance-rated construction. The open space under exterior stairways shall not be used for any purpose.

Reason: The intent of this proposal is to shift the 1009.9.4 requirement to Section 1026 in order to make a more user-friendly Code. 1009.4 specifically refers to "exterior exit stairways" and should be located under 1026 Exterior Exit Stairways and Ramps.

Cost Impact: The code change proposal will not increase the cost of construction beyond previous requirement expectations.

E97-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1026.7-E-Trotter.doc

E98 – 12
1009.10 (IFC [B] 1009.10)

Proponent: David W. Cooper, Stairway Manufacturing and Design Consultants representing Stairway Manufacturers' Association (sma@stairways.org)

Revise as follows:

~~1009.10~~1009.4 (IFC [B] ~~1009.10~~1009.4) ~~Vertical~~ Total rise. A *flight* of *stairs* shall not have a total vertical rise greater than ~~12 feet (3658 mm)~~ 147 inches (3734 mm) between floor levels or landings.

Exceptions:

1. *Aisle stairs* complying with Section 1028.
2. *Alternating tread devices* used as a *means of egress* shall not have a rise greater than 20 feet (6096 mm) between floor levels or landings.
3. *Spiral stairways* used as a *means of egress* from *technical production areas*.

(Renumber subsequent sections)

Reason: This section has been renamed to use the term "Total rise" that is common to the industry however the adjective "vertical" remains within the requirement for clear definition by all. The use of industry terms has been substantiated throughout the code.

The elevation of 147 inches is a multiple of the maximum riser heights of, 7 inches (178 mm) commercial and 7-3/4 inches (197 mm) residential, allowed for IBC stairways. (See Table 1) This minor change of just 3 inches (76 mm) in the total rise of the flight would in many cases eliminate the cost of incorporating a landing and the space required, in many instances reducing costs of construction. As can be seen in the table below this change would require no additional steps in the stair than the current code requires and a change in riser height of just 5/32 inch (4 mm) or less when the minimum number of risers is desired. This represents no discernable difference consequential to the user.

Figure 1 Residential Range = 7.58" (193mm) – 7.74" (197mm), Commercial Range = 6.84" (174mm) – 7" (178mm) see Table 1
Please note that the described circled ranges have been added to figures 1&2 by the proponent for the purpose of explanation.

Figure 2 Residential Range = 7.58" (193mm) – 7.74" (197mm), Commercial Range = 6.84" (174mm) – 7" (178mm) see Table 1
Please note that the described circled ranges have been added to figures 1&2 by the proponent for the purpose of explanation.

	Vertical Rise	# Risers	Riser Height Inches	Change in Riser Height inches	Riser Height mm	Change in Riser Height mm
Most Occupancies	144	21	6.86		174	
	147	21	7.00	0.14	178	4
Dwelling Units	144	19	7.58		193	
	147	19	7.74	0.16	197	4

Table 1

Testing in support of this proposal, as shown in the data presentations (Figure 1 and 2) from; "The Influence of Rise and Going Combinations on Stair Safety" by M S Roys, June 2004, 7th World Conference on Injury Prevention and Safety Promotion, Vienna[1], the minor variation in rise does not produce any consequential effect that can be noticed by users when comparing riser heights within the range in question. *Please note that the circled ranges have been added to figure 1 & 2 by the proponent for the purpose of explanation*. Figures one and two can be related to the perceived energy required in ascent as described by the subjective rating of the steepness of the stair and the need to pull oneself up the stair using the handrail. In these figures the user's ratings are on a scale of 1-7 and color coded. The visual display of the data shows little difference in the users ratings over the range in question.

Additional testing data from this same study further illustrates little difference in the user's perception of riser height. When asked to rate descent of the stairway in response to the statement "I felt safe when walking down the stair" the risers heights of 6.69 inches, 7.09 inches, 7.48 inches (170 mm, 180 mm, 190 mm) all were rated the same with a tread depth of 10.83 inches (275 mm). Compared with the same tread depth the riser heights of 7.87 inches, 6.30 inches (200 mm, 160 mm) were within approximately 0.5 points on a scale of 7 points further indicating little difference being perceived by the users. This provides further validation that the change proposed is reasonable and will not affect stair safety.

Relocation of Section – Vertical Rise is the first consideration and arguably most significant factor in determining the design of a stairway. It is of consequence to the number of treads and landings affecting width, headroom, and step geometry. This section is buried in the code and the fact that it is overlooked is of consequence. This proposal moves the section to head the stairway geometry requirements to assimilate the sequence of use in design.

Construction cost reduction – It is common for the total rise to exceed 144 inches (3658 mm) with oversight of the requirement or minor changes in floor systems and finish flooring options. This requires the addition of an intermediate landing. Adding a landing increases the footprint of the stairway and the cost if the space is available.

Understanding and Compliance – This change will not increase the number of risers needed in the stairway or make the stairway less safe, or add any significantly perceived increase in energy to climb the stairway. This needed change provides a direct relationship between the vertical rise requirement and the requirements for riser height that would assure better understanding and compliance.

Bibliography:

1. "The influence of rise and going combinations on stair safety"; M.S. Roys, 7th World Conference on Injury Prevention and Safety Promotion, Vienna, June 2004

Cost Impact: This will reduce the cost of construction.

E98-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1009.10-E-Cooper.doc

E99 – 12
1009.11 (IFC [B] 1009.11)

Proponent: David W. Cooper, Stairway Manufacturing and Design Consultants representing Stairway Manufacturers' Association (sma@stairways.org)

Revise as follows:

1009.11 (IFC [B] 1009.11) Curved stairways. Curved *stairways* with *winder* treads shall have treads and risers in accordance with Section 1009.7 and the smallest radius shall not be less than ~~twice~~ 1.5 times the required width of the *stairway*.

Exception: The radius restriction shall not apply to curved *stairways* for occupancies in Group R-3 and within individual *dwelling units* in occupancies in Group R-2.

Reason: The current radius restriction of twice the radius has little basis other than a rule of thumb handed down from the legacy codes and causes unnecessary restriction of curved stairway design without enhancing the safety of the user. Reducing the smallest radius restriction to 1.5 times the width is a more reasonable standard that will allow greater freedom of design. See **Figures 1 - 4** illustrating that only a slight increase in tread depth of less than 1¾ inches is realized at the outside radius and that the additional turning of the stairway does not substantially affect the view of other users that would be proximal on the stairway.

The examples below illustrate that a reduction in the minimum radius restriction will not affect the safe use of curved stairways due to tread depth or the turning of the stairway.

Figure 1
2 X Width Inner Radius

Figure 3
1.5 X Width Inner Radius

Figures 1 & 2 show the current minimum radius restriction of twice the width of the stair results in the outside tread depth of 15 inches.

Figure 2
2 X Width Inner Radius

Figures 3 & 4 show the proposed minimum radius restriction of 1-1/2 the width of the stair and a mimimal increase in the outside tread depth that causes no change in the margin of safety.

The diagonal lines represent the extreme limits of the users line of site at the inside turning. A comparison of stairways of the same width, figures 1 & 3 or 2 & 4, shows that regardles of the radius restriction each stair is viewed in the same number of segments.

Figure 4
1.5 X Width Inner Radius

The dimension used for the line of sight indicated by the diagonal lines drawn across the stairs is sixteen inches accommodating the required handrail and the proximal position of the stairway passenger. The position is based on the most common lateral displacement of 350 mm (13.8 inches)[1] from the center of the handrail to the center of the body for the handrail slope of 33º that is common to IBC compliant stairways. Added to this is half the allowed handrail width of 2¼ inches and the minimum clearance of 1½ inches totaling 16.4 inches.

The inconsequence of the minor increase in tread depth width is substantiated by testing performed by Mike Roys[2] as shown in **Figure 5**. Both the 15 inch (381 mm) and 16.7 inch (424 mm) tread depths lie in the same range of preference as indicated within the red circle. *The circle was added by the proponent for the purpose of explanation*.

Figure 5

Bibliography

1. "Biomechanical Assessment of Handrail Parameters With Special Consideration to the Needs of Elderly Users"; B.E. Maki, et al, West Park Research, May 5, 1983
2. "The influence of rise and going combinations on stair safety"; M.S. Roys, 7th World Conference on Injury Prevention and Safety Promotion, Vienna, June 2004

Cost Impact: This will not affect the cost of construction.

E99-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1009.11-E-Cooper.doc

E100 – 12
1009.1, 1009.13, 1009.14 (IFC [B] 1009.1, 1009.13, 1009.14)

Proponent: David W. Cooper, Stairway Manufacturing and Design Consultants representing Stairway Manufacturers' Association (sma@stairways.org)

Revise as follows:

1009.1 (IFC [B] 1009.1) General. *Stairways*, *alternating tread devices,* and *ship ladders* serving occupied portions of a building shall comply with the requirements of this section.

1009.13 (IFC [B] 1009.13) Alternating tread devices. *Alternating tread devices* are limited to an element of a *means of egress* in buildings of Groups F, H and S from a mezzanine not more than 250 square feet (23 m^2) in area and which serves not more than five occupants; in buildings of Group I-3 from a guard tower, observation station or control room not more than 250 square feet (23 m^2) in area and for access to unoccupied roofs.

Alternating tread devices are permitted within dwelling units of Group R-3 and Group R-2 where they do not serve as an element of the required means of egress.

1009.13.1 (IFC [B] 1009.13.1) Handrails of alternating tread devices. *(no change)*

1009.13.2 (IFC [B] 1009.13.2) Treads of alternating tread devices. *(no change)*

1009.14 (IFC [B] 1009.14) Ship ladders. Ship ladders are permitted to be used in Group I-3 as a component of a *means of egress* to and from control rooms or elevated facility observation stations not more than 250 square feet (23 m^2) with not more than three occupants and for access to unoccupied roofs.

Ship ladders are permitted within dwelling units of Group R-3 and Group R-2 where they do not serve as an element of the required means of egress.

Ship ladders shall have a minimum tread depth of 5 inches (127 mm). The tread shall be projected such that the total of the tread depth plus the *nosing* projection is no less than 8 1/2 inches (216 mm). The maximum riser height shall be 9 1/2 inches (241 mm)

.

Handrails shall be provided on both sides of ship ladders. The minimum clear width at and below the *handrails* shall be 20 inches (508 mm).

Reason: Alternating tread devices and Ship ladders by name, definition, and requirements are unique and should be listed in the charging paragraph separate from stairways.

Alternating tread devices and Ship ladders can and are being used in dwellings because they meet a practical purpose to access smaller areas. The code should regulate design and construction in such uses. Prior proposals to incorporate these devices and ship ladders have failed because they have proposed their use as a means of egress. The limited use prescribed by this proposal would provide needed guidance as to their applicability, design and use without changing current egress requirements.

Cost Impact: This will not affect the cost of construction.

E100-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1009.1-E-Coooper.doc

E101 – 12

505.3, 1009.10, 1009.14, 1009.16, 1009.16.1 (IFC [B] 1009.10, 1009.14, 1009.16, 1009.16.1)

Proponent: Jeff Sprout, AIA, Target, representing Target Corporation (jeff.sprout@target.com)

Revise as follows:

505.3 Equipment platforms. *Equipment platforms* in buildings shall not be considered as a portion of the floor below. Such *equipment platforms* shall not contribute to either the *building area* or the number of *stories* as regulated by Section 503.1. The area of the *equipment platform* shall not be included in determining the *fire area* in accordance with Section 903. *Equipment platforms* shall not be a part of any *mezzanine* and such platforms and the walkways, *stairs*, *alternating tread devices*, ships ladders and ladders providing access to an *equipment platform* shall not serve as a part of the *means of egress* from the building.

Revise as follows:

1009.10 (IFC [B] 1009.10) Vertical rise. A flight of stairs shall not have a vertical rise greater than 12 feet (3658 mm) between floor levels or landings.

Exceptions:

1. Aisle stairs complying with Section 1028.
2. Alternating tread devices used as a means of egress shall not have a rise greater than 20 feet (6096 mm) between floor levels or landings.
3. Spiral stairways used as a means of egress from technical production areas.
4. Ships ladders shall not have a vertical rise greater than 18 feet (5.5 m) between floor levels or landings.

1009.14 (IFC [B] 1009.14) Ships Ladders. Ship ladders are permitted to be used in Group I-3 as a component of a means of egress to and from control rooms or elevated facility observation stations not more than 250 square feet (23 m^2) with not more than 3 occupants and for access to unoccupied roofs. Ship ladders are permitted to be used for access to mechanical equipment or appliances requiring periodic inspection, service, or maintenance that are installed on roofs or elevated equipment platforms.

Exception: Ships ladders are not required where portable ladders are permitted in accordance with the Section 306.5 of the International Mechanical Code.

1009.14.1 (IFC [B] 1009.14.1) Configurations. Ships ladders shall be constructed in accordance with the following:

1. The ship ladder shall be installed at an angle of not less than 50 degrees and not more than 70 degrees measured from the horizontal plane.
2. Ship ladders shall have a minimum tread depth of ~~5~~ 6 inches (~~127~~ 152 mm).~~The tread shall be projected such that the total of the tread depth plus the nosing projection is no less than 8.5 inches (216 mm).~~
3. The risers shall be equally spaces with a riser height not less than 8 ½ inches (267 mm) and not more than ~~maximum riser height shall be~~ ~~9 ½~~ 12 inches (~~241~~ 356 mm).
4. Continuous handrails shall be provided on both sides of ship ladders.
5. The minimum clear width at and below the handrails shall be ~~20~~ 18 inches (~~508~~ 457 mm).

1009.16 (IFC [B] 1009.16) Stairway to roof. In buildings four or more stories above *grade plane*, one *stairway* shall extend to the roof surface, unless the roof has a slope steeper than four units vertical in 12

units horizontal (33-percent slope). In buildings without an occupied roof, access to the roof from the top story shall be permitted to be by an *alternating tread device* or ships ladders.

1009.16.1 (IFC [B] 1009.16.1) Roof access. Where a *stairway* is provided to a roof, access to the roof shall be provided through a *penthouse* complying with Section 1509.2.

Exception: In buildings without an occupied roof, access to the roof shall be permitted to be a roof hatch or trap door in accordance not less than 8 ~~16~~ square feet (0.75 ~~1.5~~ m^2) in area and having a minimum dimension of 20 inches ~~2 feet~~ (508 ~~610~~ mm).

1009.16.2 (IFC [B] 1009.16.2) Protection at roof hatch openings. Where the roof hatch opening providing the required access is located within 10 feet (3049 mm) of the roof edge, such roof access or roof edge shall be protected by *guards* installed in accordance with the provisions of Section 1013.

1009.17 (IFC [B] 1009.17) Stairway to elevator equipment. Roofs and *penthouses* containing elevator equipment that must be accessed for maintenance are required to be accessed by a *stairway*.

Reason: The ship ladder follows or meets OSHA guidelines and can be safer to use than an alternating tread stair which requires the user to always start with the right foot and balance on one foot while attempting to open the roof hatch when at the top of the ladder.

Cost Impact: The code change proposal will not increase the cost of construction.

E101-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1009.14.1-E-Sprout.doc

E102– 12

1009.1, 1009.16, 1009.16.2, 1009.18 (New) [IFC [B] 1009.1, 1009.16, 1009.16.2, 1009.18 (New)]

Proponent: Ali M. Fattah, P.E., City of San Diego, representing the San Diego Area Chapter of ICC

Revise as follows:

1009.1 (IFC [B] 1009.1) General. *Stairways* serving occupied portions of a building shall comply with the requirements of ~~this section~~ Sections 1009.2 through 1009.15. Alternating tread devices shall comply with Section 1009.16. Ships ladders shall comply with Section 1009.17. Ladders shall comply with Section 1009.18.

~~1009.15~~ 1009.13 (IFC [B] ~~1009.15~~ 1009.13) Handrails. *(no change)*

~~1009.16~~ 1009.14 (IFC [B] ~~1009.16~~ 1009.14) Stairway to roof. In buildings four or more stories above grade plane, one stairway shall extend to the roof surface, unless the roof has a slope steeper than four units vertical in 12 units horizontal (33-percent slope).

> **Exception:** Other than where required by Section 1009.14.1, in buildings without an occupied roof, access to the roof from the top story shall be permitted to be by an alternating tread device, a ships ladder or a permanent ladder.

~~1009.17~~ 1009.14.1 (IFC [B] ~~1009.17~~ 1009.14.1) Stairway to elevator equipment. Roofs and penthouses containing elevator equipment that must be accessed for maintenance are required to be accessed by a stairway.

~~1009.16.1~~ 1009.14.2 (IFC [B] ~~1009.16.1~~ 1009.14.2) Roof access. Where a stairway is provided to a roof, access to the roof shall be provided through a penthouse complying with Section 1509.2.

> **Exception:** In buildings without an occupied roof, access to the roof shall be permitted to be a roof hatch or trap door not less than 16 square feet (1.5 m2) in area and having a minimum dimension of 2 feet (610 mm).

1009.15 ~~1009.16.2~~ (IFC [B] 1009.15 ~~1009.16.2)~~ ~~Protection at roof hatch openings.~~ Guards. Guards shall be provided along stairways and landing where required by Section 1013 and shall be constructed in accordance with Section 1013. Where the roof hatch opening providing the required access is located within 10 feet (3049 mm) of the roof edge, such roof access or roof edge shall be protected by guards installed in accordance with the provisions of Section 1013.

~~1009.13~~ 1009.16 (IFC [B] ~~1009.13~~ 1009.16) Alternating tread devices. *(No change to current text)*

~~1009.13.1~~ 1009.16.1 (IFC [B] ~~1009.13.1~~ 1009.16.1) Handrails of alternating tread devices. *(No change to current text)*

~~1009.13.2~~ 1009.16.2 (IFC [B] ~~1009.13.2~~ 1009.16.2) Treads of alternating tread devices. *(No change to current text)*

~~1009.14~~ 1009.17 (IFC [B] ~~1009.14~~ 1009.17) Ships Ladders. *(No change to current text)*

1009.18 (IFC [B] 1009.18) Ladders. Permanent ladders shall not serve as a part of the *means of egress* from occupied spaces within a the building. Permanent ladders shall be permitted to providing access to the following areas:

1. Spaces frequented only by personnel for maintenance, repair or monitoring of equipment;

2. Nonoccupiable spaces accessed only by catwalks, crawl spaces, freight elevators or very narrow passageways;
3. Raised areas used primarily for purposes of security, life safety or fire safety including, but not limited to, observation galleries, prison guard towers, fire towers or lifeguard stands;
4. Elevated levels in Group U not open to the general public;
5. Non-occupied roofs that are not required to have stairway access in accordance with Section 1009.14.1.
6. Ladders shall be constructed in accordance with Section 306.5 of the International Mechanical Code, Sections 306.5.

Reason: The IBC is not clear on whether means of egress is required from certain spaces such as catwalks above ceilings, mechanical equipment areas, service pits etc. that are occasionally accessed or that are accessed by able bodied trained personnel. Furthermore the IBC makes no mention that certain areas may be accessed with fixed ladders as permitted by other codes within the I code family of codes. The means of egress definition implies that chapter 10 applies to occupied spaces. Occupied space is not defined however occupiable space does and does not exclude elevated areas used for security and observation persons required to be able bodied. The proposed reformatting of Section 1009 includes ladders as a restricted element for vertical travel in addition to ships ladders and alternating tread devices. Alternating tread devices and ships ladders are permitted as a means of egress subject to limitations.

Section 1009.18 is added to delineate when ladders can access certain areas not considered to be occupied and therefore do not need to be served by means of egress. Condition 1 frequently occurs in auto repair bays, areas in manufacturing facilities, elevator pits etc. Condition 3 addresses areas that are elevated for security personnel. Condition 4 addresses barns and stables and private garages where equipment or materials may be stored in an overhead area.

Permanent ladders are required from equipment service areas in accordance with the IMC. See text below. There are other locations where ladders are needed because there is no space for a stairway (i.e., elevator pits). While the ladder is not part of the required means of egress, a safe ladder should be provided when used for access to non-occupied spaces.

Part of this change is editorial to group all the stairway provisions together and then provide guidance for alternating tread devices, ships ladders and permanent ladders.

IMC 306.5 Equipment and appliances on roofs or elevated structures. Where *equipment* requiring access or appliances are located on an elevated structure or the roof of a building such that personnel will have to climb higher than 16 feet (4877 mm) above grade to access such equipment or appliances, an interior or exterior means of access shall be provided. Such access shall not require climbing over obstructions greater than 30 inches (762 mm) in height or walking on roofs having a slope greater than 4 units vertical in 12 units horizontal (33-percent slope). Such access shall not require the use of portable ladders. Where access involves climbing over parapet walls, the height shall be measured to the top of the parapet wall.

Permanent ladders installed to provide the required access shall comply with the following minimum design criteria:

1. The side railing shall extend above the parapet or roof edge not less than 30 inches (762 mm).
2. Ladders shall have rung spacing not to exceed 14 inches (356 mm) on center. The uppermost rung shall be a maximum of 24 inches (610 mm) below the upper edge of the roof hatch, roof or parapet, as applicable.
3. Ladders shall have a toe spacing not less than 6 inches (152 mm) deep.
4. There shall be a minimum of 18 inches (457 mm) between rails.
5. Rungs shall have a minimum 0.75-inch (19 mm) diameter and be capable of withstanding a 300-pound (136.1kg) load.
6. Ladders over 30 feet (9144 mm) in height shall be provided with offset sections and landings capable of withstanding 100 pounds per square foot (488.2 kg/m2). Landing dimensions shall be not less than 18 inches (457 mm) and not less than the width of the ladder served. A guard rail shall be provided on all open sides of the landing.
7. Climbing clearance. The distance from the centerline of the rungs to the nearest permanent object on the climbing side of the ladder shall be a minimum of 30 inches (762 mm) measured perpendicular to the rungs. This distance shall be maintained from the point of ladder access to the bottom of the roof hatch. A minimum clear width of 15-inches (381 mm) shall be provided on both sides of the ladder measured from the midpoint of and parallel with the rungs except where cages or wells are installed.
8. Landing required. The ladder shall be provided with a clear and unobstructed bottom landing area having a minimum dimension of 30 inches (762 mm) by 30 inches (762 mm) centered in front of the ladder.
9. Ladders shall be protected against corrosion by *approved* means.
10. Access to ladders shall be provided at all times.

Catwalks installed to provide the required access shall be not less than 24 inches (610 mm) wide and shall have railings as required for service platforms.

Exception: This section shall not apply to Group R-3 occupancies.

IMC 306.5.1 Sloped roofs. Where appliances, *equipment*, fans or other components that require service are installed on a roof having a slope of three units vertical in 12 units horizontal (25-percent slope) or greater and having an edge more than 30 inches (762 mm) above grade at such edge, a level platform shall be provided on each side of the *appliance* or *equipment* to which access is required for service, repair or maintenance. The platform shall be not less than 30 inches (762 mm) in any dimension and shall be provided with guards. The guards shall extend not less than 42 inches (1067 mm) above the platform, shall be constructed so as to prevent the passage of a 21-inch diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the *International Building Code*. Access shall not require walking on roofs having a slope greater than four units vertical in 12 units horizontal (33-percent slope). Where access involves obstructions greater than 30 inches (762 mm) in height, such obstructions shall be provided with ladders installed in accordance with Section 306.5 or stairs installed in accordance with the requirements specified in the *International Building Code* in the path of travel to and from appliances, fans or *equipment* requiring service.

Cost Impact: None.

E102-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1009.1-E-Fattah.doc

E103-12
1011.6.3 (IFC [B] 1011.6.3)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

Revise as follows:

1011.6.3 (IFC [B] 1011.6.3) Power source. *Exit* signs shall be illuminated at all times. To ensure continued illumination for a duration of not less than 90 minutes in case of primary power loss, the sign illumination means shall be connected to an emergency power system provided from storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Chapter 27.

Exceptions:

1. *Approved exit* sign illumination means that provide continuous illumination independent of external power sources for a duration of not less than 90 minutes, in case of primary power loss, are not required to be connected to an emergency electrical system.
2. Group I-2 hospital exit sign illumination shall not be provided by unit equipment battery only.

Reason: The IBC and IFC both have the same requirements. NFPA is less restrictive for UL listings of equipment. NFPA 70 is not referenced by IBC/IFC as does NFPA 99. IBC/IFC permit batteries.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

E103-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1017.3-E-WILLIAMS-ADHOC.doc

E104 – 12
1012.8 (IFC [B] 1012.8)

Proponent: Gene Boecker, AIA, Code Consultants, Inc, representing self (geneb@codeconsultants.com)

Revise as follows:

1012.8 (IFC [B] 1012.8) Projections. On ramps, the clear width between handrails shall be 36 inches (914 mm) minimum. Projections into the required width of stairways and ramps at each side shall not exceed 41/2 inches (114 mm) at or below the handrail height. Projections into the required width shall not be limited above the minimum headroom height required in Section 1009.5. Projections due to intermediate handrails shall not constitute a reduction in the egress width provided that each intermediate handrail is not wider than 2-1/4 inches (57 mm).

Reason: The intent, when this provision was originally added, was to allow intermediate handrails to not count against the required width since it was required on wide stairs and provided added safety on ramps. Because the prior code text was unclear what effect a handrail had on the allowed projections into the stair or ramp and what that did for the overall capacity of the egress element some change was necessary. When a person moves on a stair or ramp, using the handrail, the arm is over the railing. The person on the other side of the railing does likewise. This type of condition does not effectively reduce the capacity of the egress element and increases safety by virtue of the handrail itself.

However, double railings widen the space between columns of people on ramps and stairs and can reduce capacity. A set of handrails separated by 10 inches may be helpful in providing each column with a handrail but it should be taken into consideration when calculating the capacity of the ramp or stair. The proposal uses a 2-1/4 inch dimension to allow for non-circular handrails which might meet the requirements of Section 1012.3.1 for Type I handrails. Thus, if a single railing (or multiple single railings) is placed within a stair or ramp, each railing, if less than 2-1/4 inches in width, would not count to decrease the capacity of the egress element or required width.

However, if a set of double railings would be provided within the stair or ramp, the minimum overall width of a double railing would be 4 inches (two 1-1/4 inch railings, plus 1-1/2 inch clear between railings per Section 1012.3.1 and 1012.7). This would need to be deducted from the total width of the stair or ramp.

Cost Impact: The code change proposal will not increase the cost of construction.

E104-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1012.8-E-Boecker.doc

105 – 12
1013.2 (IFC [B] 1013.2)

Proponent: Richard Broome, CBO, City of Birmingham, AL representing self (richard.broome@birminghamal.gov)

Revise as follows:

1013.2 (IFC [B] 1013.2) Where required. *Guards* shall be located along open-sided walking surfaces), including *mezzanines, equipment platforms, stairs, ramps* and landings that are located more than ~~30~~ 21 inches (~~762~~ 533 mm) measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side. *Guards* shall be adequate in strength and attachment in accordance with Section 1607.7.

Exception: *Guards* are not required for the following locations:

1. On the loading side of loading docks or piers.
2. On the audience side of stages and raised platforms, including steps leading up to the stage and raised platforms.
3. On raised stage and platform floor areas, such as runways, ramps and side stages used for entertainment or presentations.
4. At vertical openings in the performance area of stages and platforms.
5. At elevated walking surfaces appurtenant to stages and platforms for access to and utilization of special lighting or equipment.
6. Along vehicle service pits not accessible to the public.
7. In assembly seating where *guards* in accordance with Section 1028.14 are permitted and provided.

Reason: I believe that the 30" height is way too high. Code 1009.12 #5 states "Changes in room elevations of three or fewer risers within dwelling units and sleeping units in Group R-2 and R-3 do not require *handrails*." That would be 21 inches on a 7:11 format. If handrails are required above three risers (21 inches) so should guards.

Cost Impact: There would be a slight cost increase; but not excessive. Relative to the total cost and dependant on the size of landing or deck, the added safety margin should more than outweigh the additional cost.

E105-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1013.1-E-Broome.doc

E106 – 12
1013.3 (IFC [B] 1013.3)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1013.3 (IFC [B] 1013.3) Height. Required guards shall not be less than 42 inches (1067 mm) high, measured vertically as follows:

1. From the adjacent walking surfaces,
2. On the line connecting the leading edges of the tread nosings, and
3. On ramps from the ramp surface at the guard.
4. From a seatboard where a guard would be required at the walking surface and the seatboard is part of the guard or adjacent to the guard.

Exceptions:

1. For one- and two- family dwellings and townhouses in Group R-2 and R-3, ~~For occupancies in Group R-3 not more than three stories above grade in height and~~ required guards within individual dwelling units and in areas serving the dwelling unit ~~in occupancies in Group R-2 not more than three stories above grade in height with separate means of egress, required guards~~ shall not be less than 36 inches (914 mm) in height measured vertically above the adjacent walking surfaces or ~~fixed seating~~ seatboard.
2. For Group R-2 and R-3 units, required guards within the dwelling unit shall not be less than 36 inches (914 mm) in height measured vertically above the adjacent walking surface or seatboard.

3~~2~~. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.

4~~3~~. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, where the top of the guard also serves as a handrail on the open sides of stairs, the top of the guard shall not be less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.

5~~4~~. The guard height in assembly seating areas shall comply with Section 1028.14.

6.~~5~~. Along alternating tread devices and ship ladders, guards whose top rail also serves as a handrail, shall have height not less than 30 inches (762 mm) and not more than 34 inches (864 mm), measured vertically from the leading edge of the device tread nosing.

Reason: The purpose of this change is to require higher guards when a fixed bench is part of or immediately adjacent to a guard. The concern is child safety for when children stand on a seat and possibly tip over the guard. The reference back to the floor surface in new Item 4 is to clarify where the measurement for the drop-off for where a guard is required is different from the measurement for the guard height.

The changes to Exception 1 is to coordinate better with IRC. The guard height is permitted to be 36" both inside and outside the individual dwelling unit. Where a balcony or deck had a bench constructed as part of the guard, the guard height above the bench would be 36".

New exception 2 is to allow a 36" high guard along an interior balcony or mezzanine within a Group R-2 multi-story apartment. This would allow guards and handrails along stairways (current exceptions 2 and 3) to not have a large change in elevation at the top landing to meet up with the guard. For these buildings, if there is an exterior balcony for a unit, the guard height would be 42" minimum. That would include measurement from a bench if it was constructed as part of the guard.

The intent of this proposal is to coordinate with the proposal for perimeter guards along assembly seating being proposed by the ICC 300 Bleacher Safety Committee. It is not the intent for these provisions to apply to fixed assembly seating arrangements. There types of facilities have issues of line-of-sight, requirements for handrails and guards along aisle that are stepped, ramped or level, crowd issues, etc. that are more appropriately handled in Section 1028.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party.

The code issues are assigned to the CTC by the ICC Board as “areas of study”. Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E106-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1013.3-E-Baldassarra-CTC.docx

E107 – 12
1013.3 (IFC [B] 1013.3)

Proponent: Robert Wallach, AIA, Torti Gallas and Partners, Inc., representing self (rwallach@tortigallas.com)

Revise as follows:

1013.3 (IFC [B] 1013.3) Height. Required guards shall not be less than 42 inches (1067 mm) high, measured vertically as follows:

1. From the adjacent walking surfaces:
2. On stairs, from the line connecting the leading edges of the tread nosings; and
3. On ramps, from the ramp surface at the guard.

Exceptions:

1. For occupancies in Group R-3, not more than three stories above grade in height ~~and within individual dwelling units in occupancies in Group R-2 not more than three stories above grade in height with separate means of egress,~~ required guards shall not be less than 36 inches (914 mm) in height measured vertically above the adjacent walking surfaces or adjacent fixed seating.
2. For Group R-2 and R-3 units, required guards within the dwelling unit shall not be less than 36 inches (914 mm) in height measured vertically above the adjacent walking surface or fixed seating.

3~~2.~~ For occupancies in Group R-3, and within dwelling units in Group R-2, guards on the open side of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.

4~~3.~~ For occupancies in Group R-3, and within individual *dwelling units* in occupancies in Group R-2, where the top of the *guard* also serves as a *handrail* on the open sides of *stairs*, the top of the *guard* shall not be less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.

5~~4.~~ The *guard* height in assembly seating areas shall comply with Section 1028.14.

6~~5.~~ Along *alternating tread devices* and ship ladders, *guards* whose top rail also serves as a *handrail*, shall have height not less than 30 inches (762 mm) and not more than 34 inches (864 mm), measured vertically from the leading edge of the device tread *nosing*.

Reason: As currently written, guards at dropoffs within the units such as at lofts would be allowed to be 36" for 3-story buildings, but 42" at buildings of more stories, although the potential fall distance would be the same. It is logical that balcony or deck guards be regulated relative to building height, but not the interior conditions. Current exception 2, which has been in the Code for a long time, allows a reduced guard height at stairs within the units in R-2 regardless of the height of the building and regardless of whether there is a separate means of egress. Guards at lofts or other similar interior conditions should be treated similarly.

Cost Impact: The code change will reduce the cost of construction

E107-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1013.3-E-WALLACH

E108 – 12

1013.6, 1013.7, Chapter 35 (IFC [B] 1013.6, 1013.7, Chapter 80) (IMC [B] 304.11, Chapter 15)

Proponent: Dean Kalahar, Ascend Cleaning and Restoration, LLC, representing Ascend Cleaning & Restoration. LLC (dean.kalahar@gmail.com)

Revise as follows:

1013.6 (IFC [B] 1013.6) Mechanical equipment, systems and devices. *Guards* shall be provided where ~~appliances, equipment, fans, roof hatch openings, and other~~ various components that require service are located within 10 feet (3048 mm) of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches (762 mm) above the floor, roof or grade below. The *guard* shall be constructed so as to prevent the passage of a sphere 21 inches (533 mm) in diameter. The *guard* shall extend not less than 30 inches (762 mm) beyond each end of such ~~appliance, equipment, fan, or~~ various component.

> **Exception:** Permanent fall arrest/restraint anchorage connector devices meeting ANSI/ASSE Z 359.1 affixed for use during the entire roof covering lifetime. The devices shall be re-evaluated for possible replacement when the entire roof covering is replaces. The devices shall be placed no more than 10 feet (3048 mm) on center along hip and ridge lines and placed no less than 10 feet (3048 mm) from the roof edge or open side of the walking surface.

1013.7 (IFC [B] 1013.7) Roof access. *Guards* shall be provided where the roof hatch opening is located within 10 feet (3048 mm) of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches (762 mm) above the floor, roof or grade below. The guard shall be constructed so as to prevent passage of a sphere 21 inches (533 mm) in diameter.

> **Exception:** Permanent fall arrest/restraint anchorage connector devices meeting ANSI/ASSE Z 359.1 affixed for use during the entire roof covering lifetime. The devices shall be re-evaluated for possible replacement when the entire roof covering is replaces. The devices shall be placed no more than 10 feet (3048 mm) on center along hip and ridge lines and placed no less than 10 feet (3048 mm) from the roof edge or open side of the walking surface.

IMC [B] 304.11 Guards. Guards shall be provided where ~~appliances, *equipment*, fans, or other~~ various components that require service and roof hatch openings are located within 10 feet (3048 mm) of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches (762 mm) above the floor, roof or grade below. The guard shall extend not less than 30 inches (762 mm) beyond each end of such ~~appliances, *equipment*, fans,~~ various components and roof hatch openings and the top of the guard shall be located not less than 42 inches (1067 mm) above the elevated surface adjacent to the guard. The guard shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the *International Building Code.*

> **Exception:** Permanent fall arrest/restraint anchorage connector devices meeting ANSI/ASSE Z 359.1 affixed for use during the entire roof covering lifetime. The devices shall be re-evaluated for possible replacement when the entire roof covering is replaces. The devices shall be placed no more than 10 feet (3048 mm) on center along hip and ridge lines and placed no less than 10 feet (3048 mm) from the roof edge or open side of the walking surface.

Add new standard to IBC Chapter 35, IFC Chapter 80 and IMC Chapter 15.

ASSE
American Society of Sanitary Engineering
901 Canterbury, Suite A
Westlake, OH 44145

ANSI/ASSE Z359.1-2007, Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components, Part of the Fall Protection Code

Reason: The existing code provisions requiring the construction of guards do not adequately address the expanding list of equipment, assemblies, systems, devices and items that are now commonly being placed on roof tops and elevated walking surfaces that require routine maintenance. The current provisions of these sections require guards to be constructed as a method of fall protection provided for service and installation workers. The code change proposal adds clarity to the current code language by adding additional specific items that are typical placements on roofs and elevated walking surfaces. This expands the fall protection, life-safety provisions to a growing number of trades and service workers that are working on elevated surfaces. The proposal also provides an alternate method of compliance with the inclusion of a exceptions which allow for the installation of fall arrest/restraint anchorage connector devices meeting ANSI Z359.1 which is the nationally recognized consensus general industry standard used nationally. The proposed exception is a choice made by the designer and building owner that provides design flexibility and the opportunity to lower construction cost associated with building guards. The proposal will increase the uniform application of this section of the code. The Bureau of Labor Statistics, US Department of Labor reports the fatalities due to falls for the years from 1998 to 2010 are second to only highway incidents, with an average of 743 fatalities each year over this 12 year period. Of the 635 fatal falls in 2010 one third are from falls from ladders or roofs. In 2010 the construction industry had the highest number of fatal occupational injuries. In 2010 for nonfatal falls the median number of days away from work due to falls to a lower level was 14 days. Clearly the code needs to be improved to provide fall protection where mechanical equipment, appliances, equipment, fans, roof hatch openings, solar arrays, solar water heaters, photovoltaic panels, skylights, chimneys, gutters, attic vents, and ventilators, satellite dishes, antennas, television/radio/internet and other communication equipment and all other machinery and other components that require service are located on elevated surfaces more than 30 inches above a lover level.

Cost Impact: The code change proposal will not increase the cost of construction because the current code provisions can be interpreted to have the intent to require guards at all elevated working level more than 30 inches above a floor, roof or grade. The inclusions of exceptions provide a choice to lower the cost of construction.

Analysis: A review of the standard proposed for inclusion in the code, ANSI/ASSE Z359.1 with regard to the ICC criteria for referenced standards (Section 3.6 of CP#28) will be posted on the ICC website on or before April 2, 2012.

E108-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1013.6-E-Kalahar.doc

E109-12
1013.8 (IFC [B] 1013.8)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1013.8 (IFC [B] 1013.8) Window ~~sills~~ openings. All windows ~~I~~in ~~Occupancy~~ Groups R-2 and R-3 buildings ~~, one- and two-family and multiple-family~~ including dwelling~~s~~ units, where the ~~opening~~ top of the sill ~~portion~~ of an operable window opening is located ~~more~~ less than 36 inches above the finished floor and greater than 72 inches (1829 mm) above the finished grade or other surface below on the exterior of the building, ~~the lowest part of the clear opening of the window shall be at a height not less than 36 inches (915 mm) above the finished floor surface of the room in which the window is located. Operable sections of windows shall not permit openings that allow passage of a 4-inch-diameter (102 mm) sphere where such openings are located within 36 inches (915 mm) of the finished floor.~~ shall comply with one of the following:

~~**Exceptions:**~~

1. Operable windows where the top of the sill ~~portion~~ of the opening is located more than 75 feet (22 860 mm) above the finished grade or other surface below and that are provided with window fall prevention devices that comply with ASTM F 2006.
2. Operable windows whose openings will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening when the window is in its largest opened position.
3. Operable windows whose openings ~~that~~ are provided with window fall prevention devices that comply with ASTM F 2090.
4. Operable windows that are provided with window opening control devices that comply with Section 1013.8.1.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the C

TC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

The CTC Study Group on Child Window Safety examined Section 1013.8 during the preparation of the code change for existing buildings and several questions came up regarding the original intent and the clear scope of what was being regulated. Reviewing all the code changes that led to the current language, we concluded that the limitation on window openings and the requirement for use of protection devices was focused on dwelling units within buildings. We also felt that any such buildings would have a high incidence of exposure by small children to other window openings where they might fall and be injured.

Therefore, we have clarified the language specifying that it is all windows in an R-2 or R-3 building which has dwelling units in it. Similarly, we have clarified that the height is to be measured to the top of the sill of an operable window. Finally, the exceptions aren't actually exceptions, but conditions where various devices and their standards are allowed to be used.

Cost: The reduced time required to understand and apply the section properly should reduce the construction costs associated with determining compliance.

E109-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1013.8-E-BALDASSARRA-CTC.docx

E110-12
713.14.1, 1014.2, 1018.6, 3007.7, 3008.7 (IFC [B] 1014.2, 1018.6)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1014.2 (IFC [B] 1014.2) Egress through intervening spaces. Egress through intervening spaces shall comply with this section.

1. Egress from a room or space shall not pass through adjoining or intervening rooms or areas, except where such adjoining rooms or areas and the area served are accessory to one or the other, are not a Group H occupancy and provide a discernible path of egress travel to an exit.

   Exception: Means of egress are not prohibited through adjoining or intervening rooms or spaces in a Group H, S or F occupancy when the adjoining or intervening rooms or spaces are the same or a lesser hazard occupancy group.

2. An exit access shall not pass through a room that can be locked to prevent egress.
3. Means of egress from dwelling units or sleeping areas shall not lead through other sleeping areas, toilet rooms or bathrooms.
4. Egress shall not pass through kitchens, storage rooms, closets or spaces used for similar purposes.

   Exceptions:

   1. Means of egress are not prohibited through a kitchen area serving adjoining rooms constituting part of the same dwelling unit or sleeping unit.
   2. Means of egress are not prohibited through stockrooms in Group M occupancies when all of the following are met:
      2.1 The stock is of the same hazard classification as that found in the main retail area;
      2.2 Not more than 50 percent of the exit access is through the stockroom;
      2.3 The stockroom is not subject to locking from the egress side; and
      2.4 There is a demarcated, minimum 44-inch-wide (1118 mm) aisle defined by full- or partial-height fixed walls or similar construction that will maintain the required width and lead directly from the retail area to the exit without obstructions.

5. <u>Exit access through an enclosed elevator lobby is permitted. Access to at least one of the required exits shall be provided without travel through the enclosed elevator lobbies required by Sections 713.14.1, 3007 or 3008. Where the path of exit access travel passes through an enclosed elevator lobby the level of protection required for the enclosed elevator lobby is not required to be extended to the exit unless direct access to an exit is required by other sections of this code.</u>

1018.6 (IFC [B] 1018.6) Corridor continuity. Fire-resistance-rated *corridors* shall be continuous from the point of entry to an *exit*, and shall not be interrupted by intervening rooms. Where the path of egress travel within a fire-resistance-rated *corridor* to the *exit* includes travel along unenclosed *exit access stairways* or *ramps*, the *fire resistance-rating* shall be continuous for the length of the *stairway* or *ramp* and for the length of the connecting *corridor* on the adjacent floor leading to the *exit*.

Exception<u>s</u>:

<u>1.</u> Foyers, lobbies or reception rooms constructed as required for *corridors* shall not be construed as intervening rooms.

2. Enclosed elevator lobbies as permitted by Item 5 of Section 1014.2 shall not be construed as Intervening rooms.

Revise as follows:

713.14.1 Elevator lobby. An enclosed elevator lobby shall be provided at each floor where an elevator shaft enclosure connects more than three *stories*. The lobby enclosure shall separate the elevator shaft enclosure doors from each floor by *fire partitions*. In addition to the requirements in Section 708 for *fire partitions*, doors protecting openings in the elevator lobby enclosure walls shall also comply with Section 716.5.3 as required for *corridor* walls and penetrations of the elevator lobby enclosure by ducts and air transfer openings shall be protected as required for *corridors* in accordance with Section 717.5.4.1. Elevator lobbies shall have at least one *means of egress* complying with Chapter 10 and other provisions within this code. Egress through an elevator lobby shall be permitted in accordance with Item 5 of Section 1014.2.

Revise as follows:

3007.7 Fire service access elevator lobby. The fire service access elevator shall open into a fire service access elevator lobby in accordance with Sections 3007.7.1 through 3007.7.5. Egress is permitted through the elevator lobby in accordance with Item 5 of Section 1014.2.

Exception: Where a fire service access elevator has two entrances onto a floor, the second entrance shall be permitted to open into an elevator lobby in accordance with Section 708.14.1.

3008.7 Occupant evacuation elevator lobby. The occupant evacuation elevators shall open into an elevator lobby in accordance with Sections 3008.7.1 through 3008.7.7. Egress is permitted through the elevator lobby in accordance with Item 5 of Section 1014.2.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

This proposal is one of several proposals submitted by the CTC Elevator lobby SG. The ICC Executive Board directed the Code Technology Committee (CTC) to study the issue of elevator lobby separations in November 2010 due to the number of code change proposals submitted addressing this issue over a number of code change cycles. The Code Technology Committee formed a study group on the elevator lobby separation issue in December 2010. Note that this subject had been previously addressed by CABO/BCMC in 1986 with a similar conclusion. The code change proposals submitted are the result of the CTC's study of the issue. Note that the scope of the activity was as follows:

Scope

- Review the need for elevator lobbies, with emphasis on building use, building and hoistway height, active and passive fire protection features associated with the aforementioned.
- Review the differences and specific needs when dealing with elevator lobbies of traditional-use elevators, fire service elevators, and occupant evacuation elevators.
- Review related code provisions, such as egress from and through elevator lobbies.
- Review the appropriate use of alternatives including pressurization of hoistways, additional doors, roll-down style barriers, and gasketing systems.
- Review with members of elevator industry to scope the requirements of applicable elevator reference standards as it deals with elevator lobby design, use and construction.
- Review design and construction requirements for elevator lobbies, including but not limited to dimensions, location and separation.
- Review applicable code change history, technical studies and loss statistics as part of this review.

Based upon the extensive nature of this area of study, 5 Task Groups were formed during the process to provide in-depth review and to manage the number of issues. These task groups developed a number of proposals that were coordinated throughout the process.

More information on this CTC area of study can be found at the following link.
http://www.iccsafe.org/cs/CTC/Pages/ElevatorLobbies.aspx

Cost Impact: None

E110-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

713.14.1 #2-E-BALDASSARRA-CTC.docx

E111 – 12
Table 1014.3 (IFC [B] Table 1014.3)

Proponent: Patrick A. McLaughlin, McLaughlin & Associates, representing Compressed Gas Association (pmclaugma@aol.com)

Revise as follows:

TABLE 1014.3 (IFC [B] TABLE 1014.3)
COMMON PATH OF EGRESS TRAVEL

OCCUPANCY	WITHOUT SPRINKLER SYSTEM (feet)		WITH SPRINKLER SYSTEM (feet)
	Occupant Load		
	OL ≤ 30	OL > 30	
B, S[d]	100	75	100 [a]
U	100	75	75 [a]
F	75	75	100 [a]
H-1, H-2, H-3	Not Permitted	Not Permitted	25 [a] ~~[g]~~
H-4	Not Permitted	Not Permitted	75[g]
R-2	75	75	125 [b]
R-3[e]	75	75	125 [b]
I-3	100	100	100 [a]
All others [c, f]	75	75	75 [a, b]

For SI: 1 foot = 304.8 mm.

a. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
b. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where automatic sprinkler systems are permitted in accordance with Section 903.3.1.2.
c. For a room or space used for assembly purposes having fixed seating, see Section 1028.8.
d. The length of a common path of egress travel in a Group S-2 open parking garage shall not be more than 100 feet (30 480 mm).
e. The length of a common path of egress travel in a Group R-3 occupancy located in a mixed occupancy building.
f. For the distance limitations in Group I-2, see Section 407.4.
g. Occupancies equipped throughout with an *automatic sprinkler system* in accordance with Section 903.2.5.1.

Reason: H-1 thru H-4 occupancies are required to be sprinklered, however, if the H occupancy is located within another occupancy, that occupancy may or may not be sprinklered because the sprinkler system is not required throughout the building per 903.2.5.1. As written, the common path of travel distance would not apply and there is no guidance on what the common path of travel distance should be. Furthermore, the current footnote can lead to erroneous interpretation of the code requiring the building to be spinklered throughout. In our opinion this was never the intent of this table. H occupancies cannot exit through a more hazardous occupancy, therefore the common path of egress travel allowed within the H occupancy seem reasonable when exiting through another occupancy of lesser hazard. The proposal also moves H-4 occupancies, from "All others" row, to its own row, changes the footnote, and correctly indicates that H-4 occupancies are not permitted to be without sprinkler systems.

Cost Impact: The code change proposal will not increase the cost of construction.

E111-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

T1014.3-E-MCLAUGHLIN.doc

E112 – 12
1014.3.1 (NEW) [IFC [B] 1014.3.1 (NEW)]

Proponent: Brad Emerick, P.E., City and County of Denver Fire Prevention representing the Fire Marshals Association of Colorado (FMAC) (brad.emerick@denvergov.org)

Add new text as follows:

1014.3.1 (IBC [F] 1014.3.1) Paths of egress travel. From the terminus of the *common path of egress travel*, two separate and distinct paths shall be provided that diverge at a minimum rate of 7 feet for every 10 feet of travel along the paths. Divergence shall continue until one of the following is attained:

1. The paths are separated by a distance equal to the separation required by Section 1015.2.1, or
2. An exit access doorway or exit is reached by one of the paths.

Exception: Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, the divergence rate shall not be less than 5 feet for every 10 feet traveled along the paths until Item 1 or 2 above is attained.

Reason: The only place in the code requiring "two separate and distinct paths" is in a definition. Though it's not always possible, in general, requirements should be in the body of the code.

In addition, the letter of the code allows the "two separate and distinct paths" required in the definition of Common Path of Egress Travel to parallel each other (even converge as long as they do not merge) with no minimum separation distance. The only criteria are that the paths be "separate and distinct" which are not defined. Because no minimum separation is established, the primary intent of two paths (i.e., that a single incident cannot block both) is repeatedly contested. Previous proposals to codify the concept that these paths be divergent were voted down in part because a fixed separation could not be applied at the point where the Common Path of Egress Travel terminates (terminus).

The proposed section attempts to address these by establishing a minimum divergence rate in the body of the code based on distance traversed from the terminus of the common path. An exception is proposed that is consistent with the reduced exit or exit access separation permitted for a sprinklered building (i.e., sprinklered ~ 2/3 non-sprinklered).

Though the divergence rates of 45 degrees (non-sprinklered) and 30 degrees (sprinklered) were in the original draft of this proposal, the rates of 7 feet per 10 feet of travel (approximately a 42 degree angle) and 5 feet per 10 feet of travel (approximately a 29 degree angle) are expressed in a way that is easier to verify on drawings and in the field.

The figure below depicts a common path of travel coming in from the lower right, and the two rates of divergence (sprinklered and non-sprinklered) from its terminus. The straight lines with arrows represent the envelopes established by the proposed divergence rates. To keep the number of lines on the drawing to a minimum, both rates are measured from a common horizontal line. The squiggly red lines outside the non-sprinklered divergence rate represent actual travel paths and attempt to illustrate that in a non-sprinklered building, these paths may converge as long as they do not cross the envelope established by the minimum divergence rate of 7 feet for every 10 feet of travel. The sprinklered divergence rate is depicted for comparison.

Cost Impact: This code change proposal will not increase the cost of construction.

E112-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1014.3.1(new)-E-Emerick.doc

E113 – 12
1015.1, 1015.1.1 (IFC [B] 1015.1, 1015.1.1)

Proponent: Dennis Richardson, PE; Building Official, City of Salinas, representing Tri-Chapter (Peninsula, East Bay and Monterey Bay Chapters of ICC) (dennisrichardsonpe@yahoo.com)

Revise as follows:

1015.1 (IFC [B] 1015.1) Exits or exit access doorways from spaces. Two *exits* or *exit access* doorways from any space <u>or portion of the exit access</u> shall be provided where one of the following conditions exists:

1. The *occupant load* of the space exceeds one of the values in Table 1015.1.

   Exceptions:

   1. In Group R-2 and R-3 occupancies, one *means of egress* is permitted within and from individual dwelling units with a maximum *occupant load* of 20 where the dwelling unit is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
   2. Care suites in Group I-2 occupancies complying with Section 407.4.3.

2. The *common path of egress travel* exceeds one of the limitations of Section 1014.3.
3. Where required by Section 1015.3, 1015.4, 1015.5, or 1015.6.

Where a building contains mixed occupancies, each individual occupancy shall comply with the applicable requirements for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1.

1015.1.1 (IFC [B] 1015.1.1) Three or more exits or exit access doorways. Three *exits* or *exit access doorways* shall be provided from any space <u>or portion of the exit access</u> with an *occupant load* of 501 to 1,000. Four *exits* or *exit access doorways* shall be provided from any space <u>or portion of the exit access</u> with an *occupant load* greater than 1,000.

Reason: The term space is unclear and may imply a room when Section 1015.1 and 1015.1.1 typically must apply to a wide variety of conditions and combinations of rooms, areas or spaces in the aggregate that are contained in the exit access portion of a building.

Cost Impact: This change will not increase the cost of construction.

E113-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1015.1-E-Richardson.doc

E114 – 12
1015.2 (IFC [B] 1015.2)

Proponent: Dennis Richardson, PE; Building Official, City of Salinas, representing Tri-Chapter (Peninsula, East Bay and Monterey Bay Chapters of ICC) ((dennisrichardsonpe@yahoo.com)

Revise as follows:

1015.2 (IFC [B] 1015.2) Exit or exit access doorway arrangement. Required *exits* shall be located in a manner that makes their availability obvious. *Exits* shall be unobstructed at all times. *Exit* and *exit access doorways* shall be arranged in accordance with Sections 1015.2.1 and 1015.2.2. Exit access doorways, contributing to the total number of exits or exit access doorways required by Sections 1015.1 and 1015.1.1, shall lead to separate exits.

Reason: The current language would appear to allow two of three required *exit access doorways* from a space to lead to a single exit and still be counted as two of the required exits or exit access doors from a space.

Cost Impact: This change will not increase the cost of construction.

E114-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1015.2-E-Richardson.doc

E115 – 12
1015.2.1 (IFC [B] 1015.2.1)

Proponent: Maureen Traxler, City of Seattle Dept of Planning & Development, representing City of Seattle Dept of Planning & Development (maureen.traxler@seattle.gov)

Revise as follows:

1015.2.1 (IFC [B] 1015.2.1) Two exits or exit access doorways. Where two *exits* or *exit access doorways* are required from any portion of the *exit access*, the *exit* doors or *exit access doorways* 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 *exit* doors or *exit access doorways*. Interlocking or *scissor stairs* shall be counted as one *exit stairway*.

Exceptions:

1. Where *exit access stairways* or *interior exit stairways* are interconnected by a 1-hour fire-resistance-rated *corridor* conforming to the requirements of Section 1018, the required *exit* separation shall be measured along the shortest direct line of travel within the *corridor*.
2. Where a building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2, the separation distance of the *exit* doors or *exit access doorways* shall not be less than one-third of the length of the maximum overall diagonal dimension of the area served.

Reason: This proposal allows exit access separation to be measured along a rated corridor for exit access stairways as well as for exit stairways. It is the rated corridor that provides a protected environment and justifies this method of measurement for exit stairways. The same justification applies for enclosed exit access stairways. While this provision has been in place for many years, changes in the 2012 Code justify this change. The 2012 IBC is the first edition that requires exit access stairs to be enclosed, and allows them to be used in lieu of enclosed exit stairways.

Cost Impact: The code change proposal will not increase the cost of construction.

E115-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1015.2.1-E-Traxler.doc

E116– 12

Table 1016.2 (IFC [B] Table 1016.2)

Proponent: Patrick A. McLaughlin, McLaughlin & Associates, representing Compressed Gas Association (pmclaugma@aol.com)

Revise as follows:

TABLE 1016.2 (IFC [B] TABLE 1016.2)
EXIT ACCESS TRAVEL DISTANCE[a]

OCCUPANCY	WITHOUT SPRINKLER SYSTEM (feet)	WITH SPRINKLER SYSTEM (feet)
A, E, F-1, M, R, S-1	200	250[b]
I-1	Not Permitted	250[b]
B	200	300[c]
F-2, S-2, U	300	400[c]
H-1	Not Permitted	75[c]
H-2	Not Permitted	100[~~c~~ d]
H-3	Not Permitted	150[~~c~~ d]
H-4	Not Permitted	175[~~c~~ d]
H-5	Not Permitted	200[~~c~~ d]

For SI: 1 foot = 304.8 mm.

a. *(no change)*

b. Buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where *automatic sprinkler systems* are permitted in accordance with Section 903.3.1.2.

c. Buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

d. Occupancies equipped throughout with an *automatic sprinkler system* in accordance with Section 903.2.5.1.

Reason: H-1 thru H-4 occupancies are required to be sprinklered, however, if the H occupancy is located within another occupancy, that occupancy may or may not be sprinklered because the sprinkler system is not required throughout. As written, the travel distance allowance would not apply and there is no guidance on what the travel distance should be. Furthermore, the current footnote has led to erroneous interpretation of the code requiring the building to be spinklered throughout. In our opinion this was never the intent of this table. H occupancies cannot exit through a more hazardous occupancy, therefore the travel distances allowed within the H occupancy seem reasonable when exiting through another occupancy of lesser hazard.

Cost Impact: The code change proposal will not increase the cost of construction.

E116-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

T1016.2-E-MCLAUGHLIN

E117 – 12

Table 1016.2, 1016.2.2(New) [IFC [B] Table 1016.2, 1016.2.2(New)]

Proponent: Carl F. Baldassarra, P.E., FSFPE, Rolf Jensen and Associates, Inc. representing Rolf Jensen and Associates (cbaldassarra@rjagroup.com); Tonya L. Hoover, California State Fire Marshal representing same

Revise as follows:

1016.2.2 (IFC [B] 1016.2.2) Group F-1 and S-1 increase. The maximum exit access travel distance shall be 400 feet (122 m) in Group F-1 or S-1 occupancies where all of the following are met:

1. The portion of the building classified as Group F-1 or S-1 is limited to one story in height;
2. The minimum height from the finished floor to the bottom of the ceiling or roof slab or deck is 24 feet (7315 mm); and
3. The building is equipped throughout with an automatic fire sprinkler system in accordance with Section 903.3.1.1.

TABLE 1016.2 (IFC [B] TABLE 1016.2)
EXIT ACCESS TRAVEL DISTANCE[a]

OCCUPANCY	WITHOUT SPRINKLER SYSTEM (feet)	WITH SPRINKLER SYSTEM (feet)
A, E, F-1, M, R, S-1	200	250[b]
I-1	Not Permitted	250[b]
B	200	300[c]
F-2, S-2, U	300	400[c]
H-1	Not Permitted	75[c]
H-2	Not Permitted	100[c]
H-3	Not Permitted	150[c]
H-4	Not Permitted	175[c]
H-5	Not Permitted	200[c]
I-2, I-3, I-4	150	200[c]

For SI: 1 foot = 304.8 mm.

a. See the following sections for modifications to exit access travel distance requirements:
Section 402.8: For the distance limitation in *malls*.
Section 404.9: For the distance limitation through an *atrium* space.
Section 407.4: For the distance limitation in Group I-2.
Sections 408.6.1 and 408.8.1: For the distance limitations in Group I-3.
Section 411.4: For the distance limitation in special amusement buildings.
Section 1014.2.2: For the distance limitation in Group I-2 Hospital Suites.
Section 1015.4: For the distance limitation in refrigeration machinery rooms.
Section 1015.5: For the distance limitation in refrigerated rooms and spaces.
Section 1016.2.2: For increased distance limitation in Group F-1 and Group S-1.
Section 1021.2: For buildings with *one exit*.
Section 1028.7: For increased limitation in assembly seating.
Section 1028.7: For increased limitation for assembly open-air seating.
Section 3103.4: For temporary structures.
Section 3104.9: For pedestrian walkways.

b. Buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where *automatic sprinkler systems* are permitted in accordance with Section 903.3.1.2.

c. Buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

Reason:
BALDASSARA: This proposed change is intended to allow a 400-foot exit access travel distance for F-1 and S-1 buildings meeting certain criteria. The 2009/2012 editions of the International Building Code were revised to eliminate the 400-foot exit travel distance for large Group S-1 warehouse and large Group F-1 factory facilities equipped with smoke and heat vents. This change was made because thermally-activated vents were judged not to warrant such an increase. A companion change to allow such an increase was not approved, yet there remains a need to have extended exit travel distances in such buildings because of the nature of their function. The allowance of an exit travel distance of 400 feet has existed in the IBC and Legacy codes for warehouses and factories

with non-combustible products since the early 1960s without any adverse experience, both in buildings with and without smoke and heat vents.

The California State Fire Marshal's Office (CSFM) has reviewed this subject because of the pressing need to find a solution for large F-1 and S-1 buildings. A study was commissioned and published, "*Report to the California State Fire Marshal on Exit Access Travel Distance of 400 Feet by Task Group 400, December 20, 2010*," and subsequent "*Fire Modeling Analysis Report,*" revised July 20, 2011, provide the technically-based rationale for increased exit travel distance without any special protection. That is the basis for this change. [NOTE TO ICC STAFF: PROVIDE LINKS TO THE REPORTS FOR INTERESTED PARTIES.] Future work by both the ICC Code Technology Committee and the CSFM in the next year will further improve the protection for such facilities; such provisions will be proposed for the IFC in the Group B Code Change cycle next year.

This proposal amends the above sections and add additional criteria necessary to reinstate a 400 foot travel distances for large warehouse and large factory facilities. An addition to Footnote a in Table 1016.2 is added and makes a reference to a new Section 1016.2.2.

Section 1016.2.2 is added to provide the criteria for an increased exit access travel distance of 400 feet in Group F-1 and S-1 occupancies. The criteria for application of this section, based upon the criteria in the reports, includes:

1. The travel distance increase is only applicable to portions of the building which are one story in height. The allowance for a travel distance of 400 feet in the 2006 IBC is limited to buildings which are one story in height, so this concept is carried forward. This would not preclude a building with a one story storage warehouses or factory area and a two story office or a mezzanine from also utilizing this section. The section is written so that the one story limitation is only applicable to the area where the 400 foot travel distance is utilized.
2. The minimum height from floor, ceiling, or roof deck above, must be 24 feet. The 24 feet of clearance is based on the "Fire Modeling Analysis Report" by Aon Fire Protection Engineering. The 24 feet ceiling height is used to provide a volume for the smoke to accumulate during the fire and provide time for egress, much like the concept used for smoke-protected seating. Control mode sprinklers were utilized in the fire modeling to demonstrate the more conservative approach. Certainly, ESFR or specialty sprinklers would be more effective.

HOOVER: The 2009/2012 International Building Code (IBC) and International Fire Code (IFC) revised the allowable exit travel distance for large Group F-1 factory facilities and large Group S-1 warehouses from that of the 2006 IBC and IFC and prior Legacy codes. In the 2009/2012 IBC/IFC, warehouses and factories with non-combustible products are allowed an exit access travel distance of 400 feet; however, when those same buildings contain combustible materials, the maximum exit access travel distance is reduced to 250 feet.

The allowance of an exit travel distance of 400 feet has existed in the IBC/IFC and Legacy codes for warehouses and factories with non-combustible products since the early 1960s. The allowance of an exit travel distance of 400 feet for <u>all</u> warehouses and factories has existed for well over a decade.

The California State Fire Marshal and the Task Group 400 recognized that the item was deleted from the 2009 IBC/IFC, which has been carried forward to the 2012 IBC/IFC. The ultimate goal was to revise the IBC/IFC, however a revision processed through the International Code Council Code change process would not appear in the code until the 2015 edition making adoption not possible until 2015 or later due to the regulatory adoption process. This proposal will re-instate the travel distance allowance of 400 for F-1 and S-1 occupancies, but it is not based on the installation of smoke/heat vents, it is based on fire modeling and egress times.

This proposal amends Table 1016.2 and adds a new section 1016.2.2 that contains additional criteria necessary to reinstate a 400 foot travel distances for large factory facilities and large warehouses. The report, "*Report to the California State Fire Marshal on Exit Access Travel Distance of 400 Feet by Task Group 400 December 20, 2010*" ("report"), and subsequent "*Fire Modeling Analysis Report*" (Appendix A to the report) provide the complete rationale. Initially, a simple addition to Footnote a in Table 1016.2 is added to make a reference to a new Section 1016.2.2.

Section 1016.2.2 is added to provide the criteria for an increased exit access travel distance of 400 feet in certain large Group F-1 and S-1 occupancies. The criterion for application of this section includes:

1. The travel distance increase is only applicable to portions of the building which are one story in height. The allowance for a travel distance of 400 feet in the 2006 IBC was also limited to buildings which are one story in height, so this concept is carried forward.
   This would not preclude a building with a one story storage warehouses or factory area and a two story office or a mezzanine from also utilizing this section. The section is written so that the one story limitation is only applicable to the area where the 400 foot travel distance is utilized. The two story office building would still be limited to 300 feet as indicated in Table 1016.1.
2. The minimum height from floor to ceiling above, or the underside of the roof deck, must be 24 feet. The 24 feet is measured to the bottom of the roof or ceiling above. The height is specified as 'minimum.' It is not intended to be applied to an 'average' height; it is the minimum. It is assumed that beams and purlins will extend down below this height of 24 feet.
   The 24 feet of clearance is based on the "Fire Modeling Analysis Report" by Aon Fire Protection Engineering. The 24 feet ceiling height is used to provide a volume for the smoke to accumulate during the fire event and provide time for egress. The report evaluated various size buildings and through fire modeling established safe egress times in those facilities. The report provides the basis and justification to the 400 foot exit access travel distance. Control mode sprinklers were utilized in the fire modeling to demonstrate the more conservative approach. Certainly, ESFR or specialty sprinklers would be more effective.
   The complete report can be found on the California State Fire Marshal's website at:
   http://osfm.fire.ca.gov/codedevelopment/pdf/2010interimcodeadoption/Part-9_ISOR_Attachment_A_rev20110720comp.pdf

This code change is the first of two proposals being submitted by the California State Fire Marshal regarding large factory facilities and large warehouses. This code change provides a sound solution to allowing an exit travel distance of 400 feet. The next code change proposal considers the fact that firefighting operations are impacted when larger buildings are constructed where the exit

access travel distance is allowed to be 400 feet. As a result, mitigation to the firefighting impact is to be proposed to the IFC in the 2013 ICC Group B code development schedule.

Cost Impact:
BALDASSARA: None.

HOOVER: This code change will likely decrease the cost of construction for F-1 and S-1 buildings with a travel distance in excess of 250 feet because strict compliance would require more exits unless a performance-based alternate method of design was approved.

E117-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1016.2.2 (new)-E-Baldassarra-T1016.2-E-HOOVER.doc

E118-12
1017.3, 1017.5 (IFC [B] 1017.3, 1017.5)

Proponent: S. Bajnai, Chesterfield County, VA, ICC Building Code Action Committee

Revise as follows:

SECTION 1017
AISLES

1017.1 (IFC [B] 1017.1) General. Aisles and aisle accessways serving as a portion of the exit access in the means of egress system shall comply with the requirements of this section. Aisles or aisle accessways shall be provided from all occupied portions of the exit access which contain seats, tables, furnishings, displays and similar fixtures or equipment. The required width of aisles shall be unobstructed.

Exception: Encroachments complying with Section 1005.7.

1017.2 (IFC [B] 1017.2) Aisles in assembly spaces. Aisles and aisle accessways serving a room or space used for assembly purposes shall comply with Section 1028.

1017.3 (IFC [B] 1017.3) Aisles in Groups B and M. In Group B and M occupancies, the minimum clear aisle width shall be determined by Section 1005.1 for the occupant load served, but shall not be less than ~~36 inches (914 mm)~~ that required for corridors by Section 1018.2.

Exception: Nonpublic aisles serving less than 50 people and not required to be accessible by Chapter 11 need not exceed 28 inches (711 mm) in width.

1017.4 (IFC [B] 1017.4) Aisle accessways in Group M. *(no change)*

1017.5 (IFC [B] 1017.5) Aisles in other than assembly spaces and Groups B and M. In other than rooms or spaces used for assembly purposes and Group B and M occupancies, the minimum clear aisle width shall be determined by Section 1005.1 for the occupant load served, but shall not be less than ~~36 inches (914 mm)~~ that required for corridors by Section 1018.2.

Exception: Nonpublic aisles serving less than 50 people and not required to be accessible by Chapter 11 need not exceed 28 inches (711 mm) in width.

Reason: This proposal is submitted by the ICC Building Code Action Committee (BCAC) The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 3 open meetings and over 15 workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: http://www.iccsafe.org/cs/BCAC/Pages/default.aspx.

Aisles are the main paths for means of egress through many types of spaces, such as between cubicles in open office plans, between merchandise pads in display areas in stores, between shelving in storage areas and between equipment in factories. While not confined by walls as corridors are, they should still be sized consistently with corridors so occupants could exit the building safely. The 2012 IBC has a Table in 1018.2 that provides minimum corridor widths in a clear manner. The exception currently in 1017.3 is repeated in 1017.5 for consistency between use groups.

BCAC has code changes in dealing with aisles in 1005, 1009, 1017 and 1028 as well as a transition between aisle stairs and stairways. The intent is for all four proposals to correlate; however this change can stand by itself.

Cost Impact: This code change proposal will not increase the cost of construction.

E118-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1017.3-E-BAJNAI-BCAC.docx

E119-12
1017.3, 1017.5 (IFC [B] 1017.3, 1017.5)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1017.3 (IFC [B] 1017.3) Aisles in Groups B and M. In Group B and M occupancies, the minimum clear *aisle* width shall be determined by Section 1005.1 for the *occupant load* served, but shall not be less than ~~36 inches (914 mm).~~ that required for corridors by Section 1018.2.

> **Exception:** Nonpublic *aisles* serving less than 50 people and not required to be *accessible* by Chapter 11 need not exceed 28 inches (711 mm) in width.

1017.5 (IFC [B] 1017.5) Aisles in other than assembly spaces and Groups B and M. In other than rooms or spaces used for assembly purposes and Group B and M occupancies, the minimum clear *aisle* width shall be determined by Section 1005.1 for the *occupant load* served, but shall not be less than ~~36 inches (914 mm).~~ that required for corridors by Section 1018.2.

Reason: The change for aisles in IBC Sections 1107.3 and 1017.5 is for coordination with the new corridor width Table 1018.2 and the language for ramp width in Section 1010.6.1. Also, aisles, corridors and ramps are all using the same capacity numbers in Section 1005.3.2. Aisle used for movement of patient beds should also meet 96".

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E119-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1017.3-E-WILLIAMS-ADHOC.doc

E120 – 12
1017.5 (IFC [B] 1017.5)

Proponent: Lynn W. Manley, Staff Architect, Illinois Department of Public Health (IDPH), Health Care Facilities and Programs (HCF&P) representing self (lynn.manley@illinois.gov)

Revise as follows:

1017.5 (IFC [B] 1017.5) Aisles in hospitals, ambulatory care facilities and end stage renal dialysis units. The clear aisle width for hospitals, ambulatory care facilities and end stage renal dialysis units shall be not less than 44 inches (1118 mm). The clear aisle width of areas where patient movement is by wheelchair shall be not less than 60 inches (1524 mm). The clear aisle width of areas where patient movement is by gurney or bed shall be not less than 72 inches (1829 mm).

> **Exception:** For areas that do not provide patient access, patient treatment or means of egress for patients, the minimum clear aisle width shall be determined by Section 1005.1, based upon the occupant load served, but shall not be less than 36 inches (914 mm).

~~1017.5~~ 1017.6 (IFC [B] ~~1017.5~~ 1017.6) Aisles in other ~~than assembly spaces and Groups B and M~~ occupancies. In ~~other than~~ rooms or spaces used for ~~assembly purposes and Group B and M~~ occupancies not falling within the purview of Section 1017.2, 1017.3 or 1017.5, the minimum clear aisle width shall be determined by Section 1005.1 for the occupant load served, but shall be not less than 36 inches (914 mm).

Reason: This change is proposed as a requirement for new construction. However, similar requirements may be proposed in the International Fire Code for existing facilities. The 36 inch and 44 inch dimensions are consistent with the requirements of NFPA 101 for the same occupancies. The 60 inch requirement is consistent with the minimum requirements of A.D.A. The 72 inch requirement is needed to provide space for patient movement by bed or gurney for means of egress but also for patient treatment where quick movement may be critical. The 72 inch clear dimension is really needed where aisles are provided for surgical suites, for emergency departments, intensive care units, etc. Most of these spaces are typically designed with 8'-0" aisles by experienced health care designers; however the aisles quickly become obstructed by furniture, equipment supplies and/or patients. The minimum 72" clear aisle dimension also provides space for patients during extreme emergency events.

This proposal is also intended to limit the use of aisles in new construction. Holding of patients or treatment of patients in aisles should not be permitted as the aisles are not designed for such and may violate several Medicare Requirements (Infection Control, Patient Privacy) along with NFPA 99. Patients should be held or treated in rooms, holding areas, niches or alcoves off of the aisles that are designed for patients and that have normal and emergency power electrical outlets and medical gas outlets that are required by NFPA 99)

Cost Impact: There is little of no additional cost for this requirement because it is consistent with current design practices. However, there is an additional cost to plan and provide additional space for the things that typically obstruct the aisle.

E120-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1017.6 (NEW)-E-MANLEY.pdf.doc

E121 – 12
Table 1018.1 (IFC [B] Table 1018.1)

Proponent: Thomas S. Zaremba/ Roetzel & Andress, Glazing Industry Code Committee ("GICC") and Primary Fire Rated Glazing Manufacturers (tzaremba@ralaw.com)

Revise as follows:

TABLE 1018.1 (IFC [B] TABLE 1018.1)
CORRIDOR FIRE-RESISTANCE RATING

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (hours)[c]	
		Without sprinkler system	With sprinkler system
H-1, H-2, H-3	All	Not permitted	1
H-4, H-5	Greater than 30	Not permitted	1
A, B, ~~E,~~ F, M, S, U	Greater than 30	1	0
E	Greater than 30	1	~~0~~ 1
R	Greater than 10	Not permitted	0.5
I-2[a]	All	Not permitted	0
I-1, I-3	All	Not permitted	1[b]

Reason: According to a June 2011 NFPA Research Report: "U.S. fire departments responded to an estimated average of ***6,260 structure fires*** in educational properties in 2005-2009, annually. These fires caused annual averages of ***85 civilian fire injuries*** and ***$112 million in direct property damage***. The majority of fires and losses in educational properties were in nursery through high schools." Source: Evarts, *Structure Fires in Educational Properties,* NFPA Fire Analysis and Research Division (June 2011); emphasis added.

Day Care Centers averaged 590 structure fires; 8 injuries; and $4.5 Million in direct property damage annually while K-12 educational facilities averaged an annual 4510 structure fires; 68 injuries; and $95 Million in direct property damage. Source: Evarts, *Structure Fires in Educational Properties,* NFPA Fire Analysis and Research Division (June 2011).

Most educational facilities built since the late 1970s are required to have automatic sprinkler and other fire/smoke alarm systems which, according to FEMA, likely explains why no deaths from school structure fires were reported in 2002. As displayed in the 2002 FEMA Table below, fires in educational facilities were generally less damaging than non-residential fires; ***however***, it is important to note that ***fires in schools were generally more injurious than other non-residential structure fires***.

LOSS MEASURES FOR SCHOOL STRUCTURE FIRES
(2002)

Loss Measure	All Non-Residential Structure Fires	School Structure Fires
$ Loss/Fire	$21,505	$15,956
Injuries/1,000 Fires	***14.4***	***22.0***
Fatalities/1,000 Fires	1.1	0.0

Source: FEMA, *Topical Fire Research Series, School Fires,* Vol. 4, Issue 6 (December 2004); emphasis added.

Clearly, the documented number of fires, injuries and the extensive damage done annually to educational occupancies, warrants increased fire protection for students, teachers, property and fire service members entering the buildings after fires are reported, either to rescue students that may be missing from the evacuation count, or to just put out the fires.

In the past, the principal impediment to adopting added fire protection features has been the increased cost of construction. However, SSOE Group, a world-wide architectural firm with extensive experience in the design of educational occupancies, recently completed a study of the costs associated with adding fire rated exit corridors to schools with automatic sprinkler systems. SSOE took the actual costs of three different schools that it had actually designed recently with automatic sprinkler systems and determined the additional costs necessary to fire rate their exit corridors in accordance with the 2009 edition of the IBC.

SSOE used three different schools as the basis for its report. The first is a 69,200 sq.ft. elementary school. The second is a 175,502 sq.ft. middle school. The third is a 401,797 sq.ft. high school.

SSOE's summary comparing the costs to install automatic sprinkler systems to the costs of fire rating the exit corridors in these schools is set out below. From SSOE's summary, it is clear that adding fire rated corridors actually costs **less** than it does to install automatic sprinkler systems.

COST SUMMARY	Elementary school	Middle School	High School
Total Building Cost less equipment	$10,427,000.00	$18,929,000.00	$42,851,000.00
Automatic sprinkler systems			
Initial cost	$188,916.00	$367,688.01	$643,280.31
Maintenance over life cycle	$5,476.78	$5,476.78	$5,476.78
Fire protection totals	$194,392.78	$373,164.79	$648,757.08
Fire rated exit corridors			
Initial commissioning cost	$1,580.00	$4,385.00	$7,116.00
FRJS	$38,710.00	$107,432.50	$174,342.00
Costs for door upgrades	$15,550.00	$17,450.00	$55,350.00
Pv of Annual inspection costs	$10,588.44	$25,193.18	$33,590.90
Cost difference for fire rated glazing	$83,910.00	$115,740.00	$121,640.00
Duct penetrations	$16,924.80	$24,403.20	$41,229.60
Other penetrations	$5,266.67	$14,616.67	$23,720.00
PV of Additional penetrations over life cycle	$1,825.59	$4,563.98	$4,563.98
Fire rated exit corridor totals	$174,355.50	$313,784.53	$461,552.48
Fire rated corridor costs as a percentage of Automatic Sprinkler System	89.69%	84.09%	71.14%
Fire rated corridor costs as a percentage of Total Building Costs	**1.67%**	**1.66%**	**1.08%**

Adding fire rated exit corridors to E-occupancies will result in inherently safer school buildings at less cost than including automatic sprinkler systems. Moreover, according to the SSOE report, the added cost of adding fire rated corridors represents less than 2% of the total cost to build these schools or only:

1. 1.6% of the total $10.427 million cost to build the 69,200 sq. ft. elementary school;
2. 1.6% of the total $18.929 million cost to build the 172, 502 sq. ft. middle school; and
3. 1.08% of the total $42.851 million cost to build the 401,797 sq. ft. high school.

Finally, the base schools used in the SSOE were built with an expected life of fifty (50) years. When the costs of adding fire rated corridors are amortized over the 50 year anticipated life of these school buildings, the added cost is absolutely nominal.

As to those schools affected by the proposal, it would add compartmentalization and provide redundant life safety and fire protection features to E-occupancies to the same level of fire protection that is currently required in a number of I-occupancies (including assisted living facilities, congregate care facilities, halfway houses and social rehabilitation facilities). If adopted, this proposal would affect only E-occupancies (including day care centers) that are greater than 12,000 sq. ft. in size.

E-occupancies are a special case. They involve children. Fire and life safety protections should be redundant in E-occupancies, especially given the large number of fires experienced annually; the large number of injuries related to fires that are

experienced annually; the large dollar losses experienced annually from fires in school properties; and the small overall cost to add fire rated corridors.

As the number of students served by our school systems increases with increasingly smaller adult-to-student ratios, the small added cost of construction should ***not*** be any impediment to the increased level of protection that this proposal would provide our children, their teachers and the fire service.

We urge the Committee to support this proposal.

Bibliography:
1. Evarts, *Structure Fires in Educational Properties,* NFPA Fire Analysis and Research Division (June 2011).
2. FEMA, *Topical Fire Research Series, School Fires,* Vol. 4, Issue 6 (December 2004).
3. SSOE, *Fire Rated Corridor Construction in Schools* (December 2011).

Cost Impact: This proposal will increase the cost of construction.

E121-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

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E122-12
1018.2 (IFC [B] 1018.2)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1018.2 (IFC [B] 1018.2) Width. The minimum width of *corridors* specified in Table 1018.2 shall be as determined in Section 1005.1.

> **Exception:** In Group I-2 occupancies, corridors are not required to have a clear width of 96 inches (2438 mm) in areas where there will not be stretcher or bed movement for access to care or as part of the defend in place strategy.

TABLE 1018.2 (IFC TABLE [B] 1018.2)
MINIMUM CORRIDOR WIDTH

Occupancy	Width (min)
Any facilities not listed below	44 inches (1118 mm)
Access to and utilization of mechanical, plumbing or electrical systems or equipment	24 inches (610 mm)
With a required occupancy capacity less than 50	36 inches (914 mm)
Within a dwelling unit	36 inches (914 mm)
In Group E with a *corridor* having a required capacity of 100 or more	72 inches (1829 mm)
In *corridors* and areas serving gurney traffic in occupancies where patients receive outpatient medical care, which causes the patient to be incapable of *self-preservation*	72 inches (1829 mm)
Group I-2 in areas where required for bed movement	96 inches (2438 mm)

Reason: Since hospitals typically include accessory spaces or non separated mixed use occupancies that are not patient care, the code official should have the clear ability to apply judgment in determining the appropriate means of egress components. For example a large assembly space may need certain Group requirements, while a mechanical space with no patient would not need an 8' corridor.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: This proposal could help to decrease the cost of construction by allowing a more efficient use of building square footage.

E122-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1018.2 #2-E-Williams-Adhoc.docx

E123 – 12
Table 1018.2 (IFC [B] Table 1018.2)

Proponent: Sarah A. Rice, C.B.O., The Preview Group (srice@preview-group.com)

Revise as follows:

1018.2 (IFC [B] 1018.2) Width. The minimum width of *corridors* specified in Table 1018.2 shall be as determined in Section 1005.1.

TABLE 1018.2 (IFC [B] TABLE 1018.2)
MINIMUM CORRIDOR WIDTH

OCCUPANCY	WIDTH (minimum)
Any facilities not listed below	44 inches
Access to and utilization of mechanical, plumbing or electrical systems or equipment	24 inches
With a required occupancy capacity less than 50	36 inches
Within a dwelling unit	36 inches
In Group E with a corridor having a required capacity of 100 or more	72 inches
In corridors and areas serving gurney traffic in occupancies where patients receive outpatient medical care, which causes the patient to be incapable of self-preservation	72 inches
Group I-2 in areas other than within care suites, where required for bed movement	96 inches
Group I-2 within care suites	44 inches

For SI: 1 inch = 25.4 mm.

Reason: Over the past several cycles, the IBC has evolved to regulate the design of Group I-2 occupancies (hospitals and nursing care on a 24 hour basis) in a manner consistent with the regulations required for accreditation by the Centers for Medicare & Medicaid Services (CMS) and The Joint Commission (i.e., NFPA 101-2000; Life Safety Code). One of the biggest healthcare design features added in recent years is the concept of "care suites." By definition in IBC Section 202, a "care suite" is "A group of treatment rooms, care recipient sleeping rooms and their associated support rooms or spaces and circulation space within Group I-2 occupancies where staff are in attendance for supervision of all care recipients within the suite, and the suite is in compliance with the requirements of Section 407.4.3." Typical care suites are those where the patients need close supervision and monitoring, and include ICU areas. Because of the heighten awareness in the care suite with 24-hour supervision, some of the typical egress parameters are not necessary or applicable, in this case the mandate for the corridor in a care suite to be 96 inches wide. Within care suites patient movement is highly coordinated such that there is not the same level of unmonitored activity in the corridors, thus the extra width is not necessary.

Cost Impact: None

E123-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1018.1-E-RICE.doc

E124 – 12
1018.5.1 (IFC [B] 1018.5.1) (IMC [B] 601.2.1)

Proponent: Steven J. Clark, P.E., Aquatherm, representing self (steve.clark@aquathermpipe.com)

Delete without substitution:

~~**1018.5.1 (IFC [B] 1018.5.1) (IMC [B] 601.2.1) Corridor ceiling.** Use of the space between the *corridor* ceiling and the floor or roof structure above as a return air plenum is permitted for one or more of the following conditions:~~

1. ~~The *corridor* is not required to be of fire-resistance-rated construction;~~
2. ~~The *corridor* is separated from the plenum by fire-resistance-rated construction;~~
3. ~~The air-handling system serving the *corridor* is shut down upon activation of the air-handling unit *smoke detectors* required by the *International Mechanical Code*;~~
4. ~~The air-handling system serving the *corridor* is shut down upon detection of sprinkler waterflow where the building is equipped throughout with an *automatic sprinkler system*; or~~
5. ~~The space between the *corridor* ceiling and the floor or roof structure above the *corridor* is used as a component of an *approved* engineered smoke control system.~~

Reasons: Purpose of Code Change – To improve the health and life safety of buildings by eliminating a major loophole that lowers the construction requirements in one of the most critical areas of the building.

Corridors are the critical first choice means of egress for building occupants as well as the path used by First Responders to save lives and fight fires. Any reduction in building construction standards for corridors is at best ill-advised. Unfortunately, the current section offers multiple loopholes that give minimal direct savings in sheet metal costs while substantially driving up costs of numerous other trades. The current loophole allows air plenums formed out of cavities above the corridor, under the presumption that eliminating ductwork saves some construction costs. This is a false economy and a poor and unsafe practice for a number of reasons:

1. Due to fires that have started or spread through plenums, numerous codes regulate the construction and materials allowed in plenums. These requirements to have everything from pipes and insulation to control wiring be “plenum rated” have driven up the costs of construction for many of the other trades on the project. These “plenum rated” materials often contain hazardous materials that in the advent of a fire give off extremely toxic gases. These toxic gases will then go directly back into the corridor creating a life safety risk for occupants and First Responders.
2. Plenum air systems are impossible to clean due to the type of construction and the wires, cables and pipes that are in the way. Since this is the air the occupants are breathing, this can lead to numerous health issues.
3. Plenum air systems can grow mold.
4. Plenum return air systems are not compatible with the use or return air grill filters, which keep the return air system cleaner.
5. Plenum air systems typically contain materials that can produce VOX gases that then end up in the air stream.
6. Plenum return air systems present a fire hazard, where fires can start or are drawn into, can quickly spread and are very difficult to fight.
7. Plenums add considerable work load to the code enforcement community while offering no health or safety benefit.

Bibliography:

Initial investigations on plenum cable fires; www.nrc-cnrc.gc.ca/obj/irc/doc/pubs/nrcc45133/nrcc45133.pdf
TOXIC HAZARD EVALUATION OF PLENUM CABLES . Richard W. Bukowski; www.fire.nist.gov/bfrlpubs/fire85/PDF/f85016.pdf
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Chemistry and toxicity of flame retardants for plastics. By R Liepins and E M Pearce www.ncbi.nlm.nih.gov › ... › Environ Health Perspect › v.17; Oct 1976

Cost Impact: The code change proposal will not increase the cost of construction. The cost of ducting air serving a corridor will be more than offset by the savings in avoiding “plenum rated” requirements for all other trades that run pipes, insulation, wires, cables, controls, etc….

There should be a substantial savings for the code enforcement community by eliminating the confusion and safety issues presented by the current loophole.

E124-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1018.5.1-E-Clark.doc

E125 – 12
1018.6 (IBC [F] 1018.6)

Proponent: Randall R. Dahmen, P.E. Wisconsin licensed Commercial Building Inspector, representing self

Revise as follows:

1018.6 (IFC [B] 1018.6) Corridor continuity. Fire-resistance-rated corridors shall be continuous from the point of entry to an exit, and shall not be interrupted by intervening rooms. Where the path of egress travel within a fire-resistance-rated corridor to the exit includes travel along unenclosed exit access stairways or ramps, the fire resistance-rating shall be continuous for the length of the stairway or ramp and for the length of the connecting corridor on the adjacent floor leading to the exit.

Exceptions ~~**Exception**~~**:**

1. Foyers, lobbies or reception rooms constructed as required for corridors shall not be construed as intervening rooms.
2. Rooms or spaces that are adjacent and open to a fire−resistance−rated corridor, shall not be construed as intervening rooms; provided each room or space complies with the following:
   - 2.1 The space is constructed as required for corridors;
   - 2.2 The space is not occupied with Group H occupancy uses;
   - 2.3 The space does not contain any incidental uses listed in Table 509; and
   - 2.4 The space is arranged so as to not obstruct access to the required exits.

Reason: The original exception addressed areas typical of corridor access areas. The proposed addition addresses those spaces or rooms which may be adjacent and open to a fire rated corridor, and clarifies limitations of such general areas.

Cost Impact: The code change proposal will not increase the cost of construction.

E125-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1018.6-E-Dahmen.doc

E126 – 12
1019.4, 1026.5 (IFC [B] 1019.4, 1026.5)

Proponent: Steve Pfeiffer representing City of Seattle, Department of Planning & Development (steve.pfeiffer@seattle.gov)

Revise as follows:

1019.4 (IFC [B] 1019.4) Location. Exterior egress balconies shall have a minimum ~~fire~~ separation ~~distance~~ of 10 feet (3048 mm) measured at right angles from the exterior edge of the egress balcony to:

1. Adjacent lot ~~line~~ lines;
2. Other portions of the building; ~~and from~~
3. Other buildings on the same lot unless the adjacent building *exterior walls* and openings are protected in accordance with Section 705 based on *fire separation distance*.

1026.5 (IFC [B] 1026.5) Location. *Exterior exit stairways* and *ramps* shall have a minimum ~~fire~~ separation ~~distance~~ of 10 feet (3048 mm) measured at right angles from the exterior edge of the *stairway* or *ramp*, including landings, to:

1. Adjacent lot ~~line~~ lines;
2. Other portions of the building; ~~and from~~
3. Other buildings on the same lot unless the adjacent building *exterior walls* and openings are protected in accordance with Section 705 based on *fire separation distance*.

Reason: The purpose of this change is to clarify that an exterior exit stairway or egress balcony needs a minimum 10 feet separation where a building wraps around on itself, such as a U-shaped building. The phrase "at right angles" was added because the definition of fire separation distance measures from a wall rather than the exterior edge.

Cost Impact: The code change proposal will not increase the cost of construction.

E126-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1019.4-E-Pfeiffer.doc

E127 – 12

1015.2.2, 1021.1, Table 1021.1(New), 1021.2, Table 1021.2(1), Table 1021.2(2), 1021.2.1, 1021.2.2, 1021.2.3, 1021.2.4, 1021.2.5, 1021.3, 1021.3.1, 1021.4 (IFC [B] 1015.2.2, 1021.1, Table 1021.1(New), 1021.2, Table 1021.2(1), Table 1021.2(2), 1021.2.1, 1021.2.2, 1021.2.3, 1021.2.4, 1021.2.5, 1021.3, 1021.3.1, 1021.4)

Proponent: Wayne Jewell, Green Oak Township, representing self and Steve Thomas, Colorado Code Consulting, representing self

Revise as follows:

1015.2.2 (IFC [B] 1015.2.2) Three or more exits or exit access doorways. Where access to three or more *exits* is required, at least two *exit* doors or *exit access doorways* shall be arranged in accordance with the provisions of Section 1015.2.1. Additional required exit or exit access doorways shall be arranged a reasonable distance apart so that if one becomes, blocked, the others will be available.

SECTION 1021 (IFC [B] 1021)
NUMBER OF EXITS ~~AND EXIT CONFIGURATION~~

1021.1 (IFC [B] 1021.1) General. Each story and occupied roof shall have the minimum number of independent exits, or access to exits, as specified in ~~this section~~ Table 1021.1. A single exit or access to a single exit shall be permitted in accordance with Section 1021.2. The required number of exits, or exit access stairways or ramps providing access to exits, from any story shall be maintained until arrival at grade or a public way. ~~Exits or access to exits from any story shall be configured in accordance with this section. Each story above the second story of a building shall have a minimum of one interior or exterior exit stairway, or interior or exterior exit ramp. At each story above the second story that requires a minimum of three or more exits, or access to exits, a minimum of 50 percent of the required exits shall be interior or exterior exit stairways, or interior or exterior exit ramps.~~

~~**Exceptions:**~~

1. ~~Interior exit stairways and interior exit ramps are not required in open parking garages where the means of egress serves only the open parking garage.~~
2. ~~Interior exit stairways and interior exit ramps are not required in outdoor facilities where all portions of the means of egress are essentially open to the outside.~~

TABLE 1021.1 (IFC [B] TABLE 1021.1)
MINIMUM NUMBER OF EXITS OR ACCESS TO EXITS PER STORY

Occupant Load per Story	Minimum Number of Exits or Access to Exits From Story
1-500	2
501-1,000	3
More than 1,000	4

1021.2 (IFC [B] 1021.2) Single exits ~~from stories~~. A single exit or access to a single exit shall be permitted ~~Two exits, or exit access stairways or ramps providing access to exits,~~ from any story or occupied roof, ~~shall be~~ provided ~~where~~ one of the following conditions exists:

1. The occupant load, ~~or~~ number of dwelling units and exit access travel distance does not

exceed~~s~~ ~~one of~~ the values in Table 1021.2(1) or 1021.2(2).

~~2. The exit access travel distance exceeds that specified in Table 1021.2(1) or 1021.2(2) as determined in accordance with the provisions of Section 1016.1.~~

~~3. Helistop landing areas located on buildings or structures shall be provided with two exits, or exit access stairways or ramps providing access to exits.~~

~~**Exceptions:**~~

~~1~~2. Rooms, areas and spaces complying with Section 1015.1 with exits that discharge directly to the exterior at the level of exit discharge, are permitted to have one exit or access to a single exit.

~~2~~3. Group R-3 occupancy buildings shall be permitted to have one exit.

~~3~~4. Parking garages where vehicles are mechanically parked shall be permitted to have one exit or access to a single exit,

~~4. Air traffic control towers shall be provided with the minimum number of exits specified in Section 412.3.~~

~~5. Individual dwelling units in compliance with Section 1021.2.3.~~

5~~6.~~ Group R-3 and R-4 congregate residences shall be permitted to have one exit or access to a single exit.

6. ~~**1021.2.3 (IFC [B] 1021.2.3) Single-story or multi-story dwelling units.**~~ Individual single-story or multi-story dwelling units shall be permitted to have a single exit or access to a single exit ~~within and~~ from the dwelling unit provided that all of the following criteria are met:

   6.1 The dwelling unit complies with Section 1015.1 as a space with one means of egress and

   6.2 Either the exit from the dwelling unit discharges directly to the exterior at the level of exit discharge, or the exit access outside the dwelling unit's entrance door provides access to not less than two approved independent exits.

~~7. Exits serving specific spaces or areas need not be accessed by the remainder of the story when all of the following are met:~~

   ~~7.1 The number of exits from the entire story complies with Section 1021.2.4;~~

   ~~7.2 The access to exits from each individual space in the story complies with Section 1015.1; and~~

   ~~7.3 All spaces within each portion of a story shall have access to the minimum number of approved independent exits based on the occupant load of that portion of the story but not less than two exits.~~

TABLE 1021.2(1) (IFC [B] TABLE 1021.2(1))
STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR R-2 OCCUPANCIES

STORY	OCCUPANCY	MAXIMUM NUMBER OF DWELLING UNITS	MAXIMUM EXIT ACCESS TRAVEL DISTANCE
Basement, first, second or third story above grade plane	R-2[a, b]	4 dwelling units	125 feet
Fourth story above grade plane and higher ~~above~~	NP	NA	NA

For SI: 1 foot = 3048 mm.
NP – Not Permitted
NA – Not Applicable

a. Buildings classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with emergency escape and rescue openings in accordance with Section 1029.

b. This Table is used for R-2 occupancies consisting of dwelling units. For R-2 occupancies consisting of sleeping units, use Table 1021.2(2).

TABLE 1021.2(2) (IFC [B] TABLE 1021.2(2))
STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR OTHER OCCUPANCIES

STORY	OCCUPANCY	MAXIMUM OCCUPANTS STORY	MAXIMUM EXIT ACCESS TRAVEL DISTANCE
First story above or below grade plane ~~basement~~	A, B[b], E F[b], M, U, S[b]	49 occupants	75 feet
	H-2, H-3	3 occupants	25 feet
	H-4, H-5, I, R-1, R-2[a,c], R-4	10 occupants	75 feet
	S	29 occupants	100 feet
Second story above grade plane	B, F, M, S	29 occupants	75 feet
Third story above grade plane and ~~above~~ higher	NP	NA	NA

For SI: 1 foot = 304.8 mm.
NP – Not Permitted
NA – Not Applicable

a. Buildings classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with emergency escape and rescue openings in accordance with Section 1029.
b. Group B, F and S occupancies in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 shall have a maximum travel distance of 100 feet.
c. This Table is used for R-2 occupancies consisting of sleeping units. For R-2 occupancies consisting of dwelling units, use Table 1021.2(1).

1021.2.1 (IFC [B] 1021.2.1) Mixed occupancies. Where one exit, or exit access stairway or ramp providing access to exits at other stories, is permitted to serve individual stories, mixed occupancies shall be permitted to be served by single exits provided each individual occupancy complies with the applicable requirements of Table 1021.2(1) or Table 1021.2(2) for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1. In each story of a mixed occupancy building, the maximum number of occupants served by a single exit shall be such that the sum of the ratios of the calculated number of occupants of the space divided by the allowable number of occupants indicated in Table 1012.3(1) for each occupancy does not exceed one. Where dwelling units are located on a story with other occupancies, the actual number of dwelling units divided by 4 plus the ratio from the other occupancy does not exceed one.

1021.2.2 (IFC [B] 1021.2.2) Exits from specific space. Exits serving specific spaces or areas need not be accessed by the remainder of the story when all of the following are met:

1. The number of exits from the entire story complies with Section ~~1021.4.1~~ 1021.1;
2. The access to exits from each individual space in the story complies with Section 1015.1; and
3. All spaces within each portion of a story shall have access to the minimum number of approved independent exits based on the occupant load of that portion of the story but not less than two exits.

~~**1021.2.2 (IFC [B] 1021.1.2) Basements.** A basement provided with one exit shall not be located more than one story below grade plane.~~

~~**1021.2.3 (IFC [B] 1021.2.3) Single-story or multi-story dwelling units.** Individual single-story or multi-story dwelling units shall be permitted to have a single exit within and from the dwelling unit provided that all of the following criteria are met:~~

~~1. The dwelling unit complies with Section 1015.1 as a space with one means of egress and~~
~~2. Either the exit from the dwelling unit discharges directly to the exterior at the level of exit discharge, or the exit access outside the dwelling unit's entrance door provides access to not less~~

~~than two approved independent exits.~~

~~**1021.2.4 (IFC [B] 1021.2.4) Three or more exits.** Three exits, or exit access stairways or ramps providing access to exits at other stories, shall be provided from any story or occupied roof with an occupant load of 501-1,000. Four exits, or exit access stairways or ramps providing access to exits at other stories, shall be provided from any story or occupied roof with an occupant load greater than 1,000.~~

~~**1021.2.5 (IFC [B] 1021.2.5) Additional exits.** In buildings over 420 feet in height, additional exits shall be provided in accordance with Section 403.5.2.~~

~~**1021.3 (IFC [B] 1021.3) Exit configuration.** Exits, or exit access stairways or ramps providing access to exits at other stories, shall be arranged in accordance with the provisions of Section 1015.2 through 1015.2.2. Exits shall be continuous from the point of entry into the exit to the exit discharge.~~

~~**1021.3.1 (IFC [B] 1021.3.1) Access to exits at adjacent levels.** Access to exits at other levels shall be by stairways or ramps. Where access to exits occurs from adjacent building levels, the horizontal and vertical exit access travel distance to the closest exit shall not exceed that specified in Section 1016.1. Access to exits at other levels shall be from an adjacent story.~~

> ~~**Exception:** Landing platforms or roof areas for helistops that are less than 60 feet (18 288 mm) long, or less than 2,000 square feet (186 m^2) in area, shall be permitted to access the second exit by a fire escape, alternating tread device or ladder leading to the story or level below.~~

1021.3 ~~1021.4~~ (IFC [B] 1021.3 ~~1021.4~~) Vehicular ramps. Vehicular ramps shall not be considered as an exit access ramp unless pedestrian facilities are provided.

Reason: The intent of this proposal is to reorganize Section 1020 for clarity.

1015.2.2 – Separation for the 3rd exit was deleted by E82-04/05 as too subjective, however, this language should be reinserted because now there is no language to describe where additional exits are located.
1021.1 –The word 'independent' is added for clarity (no one should consider a double door as two exits). The minimum number of MOE have been moved into a table format for clarity and ease of reference for other requirements. The exceptions are not needed since the number required is based on exit and/or access to exits. Open parking and outdoor stadiums are exit access stairways from each floor above grade.
New Table 1021.1 – Requirements from 1021.1 and 1021.2.4 are relocated together into Table format. Allowances are extended to be number of exits and/or number of access to exits (i.e., exit access doorways, exit access stairways, exit access ramps).
1021.2 – This section is revise for a positive where permitted approach rather than exceptions.

- Item 1 & 2 – combined
- Existing item 3 – deleted because already addressed in 412.7.3 – need to be consistent in references for MOE
- New Item 2 and 4 – revised for exit and exit access
- Existing Exception 4 – deleted because already addressed in 412.3 - need to be consistent in references for MOE
- Existing Exception 5 - addressed in new Item 6
- New Item 5 - revised for exit and exit access
- New Item 6 – revised for exit and exit access; relocated from 1021.2.3. No reason to be separate section.
- Existing Exception 7 – Since this is exit configuration, not single exit, it has been relocated to new 1021.2.2.

Table 1021.2(1) and 1021.2(2) – Revise headings to limit number of basements to 1.
1021.2.1 – The additional sentence adopts the same ratio formula currently in the code but addresses what you would do when dwelling units were in the mix (i.e., there is no occupant load).
New 1021.2.2 – this was Section 1021.2 Exception 7. Relocated since this is exit configuration for situations where one exit may be within a tenant space and blocked from access from other tenants on the floor.
Existing 1021.2.2 - Deleted. Basements are now addressed in Table 1021.2(1) and 1021.2(2) so not needed here.
Existing 1021.2.3 – deleted and relocated to 1021.2 new Item 6.
Existing 1021.2.4 – deleted and relocated to Table 1021.1
Existing 1021.2.5 – deleted –3rd stairway is not a required means of egress stairway and already addressed in 403.5.2. Code users should either reference all MOE in Chapter 4 or rely on Chapter 4 and not reference anything.
Existing 1021.3 - Delete. Now addressed in 1015.2 and 1015.2.1
Existing 1021.3.1 - Delete. Now addressed in 1015.2 and 1015.2.1. Helistops in exception are addressed in 412.7.3.

Cost Impact: None

E127-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1020-E- Jewell-Thomas.doc

E128– 12
1021.1 (IFC [B] 1021.1)

Proponent: Philip Brazil, P.E., Senior Engineer, Reid Middleton, Inc., representing Washington Association of Building Officials, Technical Code Development Committee

Revise as follows:

1021.1 (IFC [B] 1021.1) General. Each story and occupied roof shall have the minimum number of *exits*, or access to *exits*, as specified in this section. The required number of exits, or *exit access stairways* or *ramps* providing access to exits, from any story <u>or occupied roof</u> shall be maintained until arrival at grade or a *public way*. *Exits* or access to exits from any story <u>or occupied roof</u> shall be configured in accordance with this section. Each story <u>and occupied roof</u> above the second story of a building shall have a minimum of one interior or exterior *exit stairway*, or interior or exterior *exit ramp*. At each story <u>and occupied roof</u> above the second *story* that requires a minimum of three or more *exits*, or access to *exits*, a minimum of 50 percent of the required *exits* shall be interior or exterior *exit stairways*, or interior or exterior *exit ramps*.

Exceptions:

1. *Interior exit stairways* and *interior exit ramps* are not required in *open parking garages* where the *means of egress* serves only the *open parking garage*.
2. *Interior exit stairways* and *interior exit ramps* are not required in outdoor facilities where all portions of the *means of egress* are essentially open to the outside.

Reason: The addition of "or occupied roof" clarifies the intent from the first sentence ("each story and occupied roof") that occupied roofs shall be provided with exits as required for stories. Without the addition of "or occupied roof," the requirements to (1) maintain the required number of exits, or exit access stairways or ramps providing access to exits, until arrival at grade or a public way, (2) configure the exits or access to exits in accordance with Section 1021, and (3) have a minimum number of interior or exterior exit stairways or ramps, will not apply to occupied roofs. The additions are also for consistency with "story or occupied roof" in Sections 1021.2 and 1021.2.4.

Finally, the addition of "or occupied roof" will restore the intent of Section 1021.1 in the 2009 IBC, which required occupied roofs to "be provided with exits as required for stories."

Cost Impact: The code change proposal will not increase the cost of construction.

E128-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1021.1-E-Brazil.doc

E129 – 12
1021.1 (IFC [B] 1021.1)

Proponent: Paul Armstrong, P.E., CBO, City of El Monte representing the ICC Orange Empire Chapter Code Committee (paul@jaspacific.com)

Revise as follows:

1021.1 (IFC [B] 1021.1) General. Each story and occupied roof shall have the minimum number of exits, or access to exits, as specified in this section. The required number of exits, or exit access stairways or ramps providing access to exits, from any story shall be maintained until arrival at grade or a public way. Exits or access to exits from any story shall be configured in accordance with this section. A minimum of 50 percent of the required exits from ~~E~~each story above the second story of a building shall be an ~~have a minimum of one~~ interior or exterior exit stairway~~,~~ or ~~interior or exterior~~ exit ramp. ~~At each story above the second story that requires a minimum of three or more exits, or access to exits, a minimum of 50 percent of the required exits shall be interior or exterior exit stairways, or interior or exterior exit ramps.~~

Exceptions:

1. *Interior exit stairways* and *interior exit ramps* are not required in *open parking garages* where the *means of egress* serves only the *open parking garage*.
2. *Interior exit stairways* and *interior exit ramp*s are not required in outdoor facilities where all portions of the *means of egress* are essentially open to the outside.

Reason: The current provision is confusing. This is intended to make the requirement much clearer.

Cost Impact: The code change proposal will not increase the cost of construction.

E129-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1021.1-E-Armstrong.doc

E130 – 12
1021.1 (IFC [B] 1021.1)

Proponent: David S. Collins, The PREVIEW GROUP, Inc., representing The American Institute of Architects (dcollins@preview-group.com); Gregory R. Keith, Professional heuristic Development, representing The Boeing Company (grkeith@mac.com)

Revise as follows:

1021.1 (IFC [B] 1021.1) General. Each story and occupied roof shall have the minimum number of exits, or access to exits, as specified in this section. The required number of exits, or exit access stairways or ramps providing access to exits, from any story shall be maintained until arrival at grade or a public way. Exits or access to exits from any story shall be configured in accordance with this section. ~~Each story above the second story of a building shall have a minimum of one interior or exterior exit stairway, or interior or exterior exit ramp. Each story above the second story that requires a minimum of three or more exits, or access to exits, a minimum of 50 percent of the required exits shall be interior or exterior exit stairways, or interior or exterior exit ramps.~~

~~**Exceptions:**~~

1. ~~Interior exit stairways and interior exit ramps are not required in open parking garages where the means of egress serves only the open parking garage.~~
2. ~~Interior exit stairways and interior exit ramps are not required in outdoor facilities where all portions of the means of egress are essentially open to the outside.~~

Reason: The purpose of Section 1021 is to specify how many exits or access to exits are required from a given story. Currently, Section 1021 also contains a requirement that mandates that specific exit components (interior or exterior exit stairways or ramps) be included in the design of any building above the second story. This prescriptive requirement is contrary to the IBC means of egress philosophy clarified in the 2012 Edition. The architect's design should dictate what exit components are used and where, so long as they satisfy the applicable means of egress design requirements.

This proposal is intended to complete a concept introduced into the 2012 IBC by code change proposal E5-09/10. That proposal eliminated the term “exit enclosure” and replaced it with the term “interior exit stairway.” The entire methodology of means of egress stairway relationships was examined and placed in technical context. A major feature of this reorganization was to specify that there were no exceptions to interior exit stairway enclosure requirements. Section 1022.1 of the 2009 Edition of the IBC contained seven exceptions to fire-resistance rated exit stairway requirements. Section 1016.1 contained an additional two related exceptions. The current logic is that once an exit component is required to satisfy a given means of egress design requirement, it should be properly protected and maintained until arrival at the exit discharge or public way.

One residual requirement exists from the former collection of exceptions to the enclosure of exits. That provision is contained in the last two sentences of Section 1021.1 and mandates that above the second story, there shall be a minimum of one (or 50%) interior or exterior exit stairway or interior or exterior exit ramp. Bear in mind, the provision is not addressing the number of required exits from the story—the subject of the section. Rather, it is prescribing specific exit components to be utilized at a given story. The definition of “INTERIOR EXIT STAIRWAY” states that it is, “An exit component that serves to meet one or more means of egress design requirements, such as required number of exits or exit access travel distance, and provides for a protected path of egress travel to the exit discharge or public way.” As noted in the definition, interior exit stairways serve to meet means of egress design requirements. Specific exit components are to be employed by the building designer as necessary to satisfy fundamental design provisions such as exit access travel distance. Typically, but not necessarily, interior exit stairways will be used at the upper levels of a building. There is no technical or philosophical reason to mandate a particular exit component where the story otherwise meets all means of egress design requirements.

Interestingly, no legacy code contained such a requirement. The related technical provision in the 2009 IBC was located at Section 1016.1, Exception 3 that states, “In other than occupancy Groups H and I, the exit access travel distance to a maximum of 50 percent of the exits is permitted to be measured from the most remote point within a building to an exit using unenclosed exit access stairways or ramps when connecting a maximum of two stories. The two connected stories shall be provided with at least two means of egress. Such interconnected stories shall not be open to other stories.” An exception that did not specifically mention interior exit stairways, somehow evolved into a requirement that demanded the inclusion of specific exit components.

In combination, IBC means of egress design requirements provide for an extremely high degree of occupant tenability. There is no technical, historical or statistical justification for the prescriptive requirement for specific exit components above the second story of a building, regardless of how small that the building is. In fact, requiring interior or exterior stairways has the effect of enlarging the exit access at a given story. Section 1021.3.1 states, “Where access to exits occurs from adjacent building levels, the horizontal and vertical exit access travel distance to the closest exit shall not exceed that specified in Section 1016.1.” Section 1016.3.1 further states, “Travel distance on exit access stairways or ramps shall be included in the exit access travel distance measurement. The measurement along stairways shall be made on a plane parallel and tangent to the stair tread nosings in the center of the stair and landings.” Accordingly, the exit access includes that portion of travel distance at the upper story, the exit access stairway and travel to a formal exit at the story below. The requirement to include all travel until arrival at the entrance to an exit at an adjacent level reduces the building footprint (See illustration.)

The size of the building and the design of the means of egress system should be based on the vision of the architect. Mandating specific exit components at upper building levels can reduce flexibility in the design of the means of egress system and the building overall.

The two current exceptions to Section 1021.1 are unnecessary when the interior and exterior stairway and ramp provisions are deleted. Section 1009.3, Exceptions 6 and 7 allow for unenclosed exit access stairways in open parking garages and outdoor facilities. Additionally, Section 1016.3, Exceptions 1 and 2 allow for exit access travel distance to be measured to an unenclosed exit access stairway or ramp in open parking garages and outdoor facilities.

In summary, the current requirement in Section 1021.1 for each story above the second story to have at least one interior or exterior exit stairway or interior or exterior exit ramp is the last remnant of a former disjointed IBC means of egress design approach based on philosophically conflicting legacy code provisions. With the 2012 Edition of the IBC, design integrity and consistency in interpretation has finally been achieved through the clarification of exit stairway enclosure and exit access from adjacent stories provisions--with one exception. Deletion of the mandate for specific exit components above the second story of a building will allow the design of the means of egress to be properly based on stated Chapter 10 design requirements, including exit access travel distance, numbers of exits or exit access doorways, separation of exits or exit access doorways, etc. Approval of this proposal will complement the performance-based nature of IBC means of egress design provisions while maintaining the highest levels of occupant safety.

Cost Impact: None

E130-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1021.1-E-Collins-Keith.doc

E131 – 12

1021.1, Table 1021.2(1), Table 1021.2(2) [IFC [B] 1021.1, Table 1021.2(1), Table 1021.2(2)]

Proponent: Maureen Traxler, City of Seattle Dept of Planning & Development, representing City of Seattle Dept of Planning & Development (maureen.traxler@seattle.gov)

Revise as follows:

1021.1 (IFC [B] 1021.1) General. Each story and occupied roof shall have the minimum number of *exits*, or access to exits, as specified in this section. The required number of *exits*, or *exit access stairways* or *ramps* providing access to exits, from any story shall be maintained until arrival at grade or a *public way*. *Exits* or access to exits from any story shall be configured in accordance with this section. Each story ~~above the second story of a building~~ located more than two stories above the lowest level of exit discharge shall have a minimum of one interior or exterior *exit stairway*, or interior or exterior *exit ramp*. At each story ~~above the second story~~ located more than two stories above the lowest level of exit discharge that requires a minimum of three or more *exits*, or access to *exits*, a minimum of 50 percent of the required *exits* shall be interior or exterior *exit stairways*, or interior or exterior *exit ramps*.

Exceptions:

1. Interior exit stairways and interior exit ramps are not required in open parking garages where the means of egress serves only the open parking garage.
2. Interior exit stairways and interior exit ramps are not required in outdoor facilities where all portions of the means of egress are essentially open to the outside.

TABLE 1021.2(1) (IFC [B] TABLE 1021.2(1))
STORIES[a] WITH ONE EXIT OR ACCESS TO ONE EXIT FOR R-2 OCCUPANCIES

STORY	OCCUPANCY	MAXIMUM NUMBER OF DWELLING UNITS	MAXIMUM EXIT ACCESS TRAVEL DISTANCE
Basement, first, second or third story	R-2[~~a, b~~, c]	4 dwelling units	125 feet
Fourth story and above	NP	NA	NA

For SI: 1 foot = 304.8 mm.
NP – Not Permitted
NA – Not Applicable
a. When determining the number of "stories", the level of exit discharge shall be considered the first story.
b. Buildings classified as Group R-2 equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with *emergency escape and rescue openings* in accordance with Section 1029.
~~b~~ c. This table is used for R-2 occupancies consisting of *dwelling units*. For R-2 occupancies consisting of *sleeping units*, use Table 1021.2(2).

TABLE 1021.2(2) (IFC [B] TABLE 1021.2(2))
STORIES[a] WITH ONE EXIT OR ACCESS TO ONE EXIT FOR OTHER OCCUPANCIES

STORY	OCCUPANCY	MAXIMUM OCCUPANTS PER STORY	MAXIMUM EXIT ACCESS TRAVEL DISTANCE
First story or basement	A, B[~~b~~c], E, F[~~b~~c], M, U, S[~~b~~c]	49 occupants	75 feet
	H-2, H-3	3 occupants	25 feet
	H-4, H-5, I, R-1, R-2[~~a~~ b, ~~c~~ d], R-4	10 occupants	75 feet
	S	29 occupants	100 feet
Second story	B, F, M, S	29 occupants	75 feet
Third story and above	NP	NA	NA

For SI: 1 foot = 304.8 mm.

NP – Not Permitted
NA – Not Applicable

a. When determining the number of "stories", the level of exit discharge shall be considered the first story.

b. Buildings classified as Group R-2 equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with *emergency escape and rescue openings* in accordance with Section 1029.

~~b~~ c. Group B, F and S occupancies in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 shall have a maximum travel distance of 100 feet.

~~c~~ d. This table is used for R-2 occupancies consisting of *sleeping units*. For R-2 occupancies consisting of *dwelling units*, use Table 1021.2(1).

Reason: This proposal substitutes level of exit discharge as the basis for requiring exit stairways and ramps. The level of exit discharge is the most pertinent datum to trigger egress requirements that pertain to the location of a story in a building. The reason for specifying different egress requirements for stories located at different elevations is access to the exit discharge, i.e., how many stories must be traversed before reaching the exit discharge. Using level of exit discharge also provides more consistency among buildings because the location of the second story can vary greatly between buildings. Basements are defined as stories, so the second story of a building could be below grade. In buildings without a basement, the second story could be some distance above grade. The proposal specifies the lowest level of exit discharge to address buildings on sloping sites with more than one level of exit discharge. The lowest level of exit discharge is the most conservative interpretation of the intent of this section.

Cost Impact: The code change proposal will not increase the cost of construction.

E131-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1021.1-E-Traxler.doc

E132 – 12
1021.2 (IFC [B] 1021.2)

Proponent: Philip Brazil, P.E., Senior Engineer, Reid Middleton, Inc., representing Washington Association of Building Officials, Technical Code Development Committee (pbrazil@reidmiddleton.com)

Revise as follows:

1021.2 (IFC [B] 1021.2) Exits from stories. Two *exits*, or *exit access stairways* or *ramps* providing access to *exits*, from any story or occupied roof shall be provided where one of the following conditions exists:

1. The *occupant load* or number of *dwelling units* exceeds one of the values in Table 1021.2(1) or 1021.2(2).
2. The *exit access* travel distance exceeds that specified in Table 1021.2(1) or 1021.2(2) as determined in accordance with the provisions of Section 1016.1.
3. *Helistop* landing areas located on buildings or structures shall be provided with two *exits*, or *exit access stairways* or *ramps* providing access to *exits*.

Exceptions:

1. Rooms, areas and spaces complying with Section 1015.1 with *exits* that discharge directly to the exterior at the *level of exit discharge*~~,~~ are permitted to have one *exit*.
2. Group R-3 occupancy *buildings* shall be permitted to have one *exit*.
3. Parking garages where vehicles are mechanically parked shall be permitted to have one *exit*.
4. Air traffic control towers shall be provided with the minimum number of *exits* specified in Section 412.3.
5. Individual *dwelling units* in compliance with Section 1021.2.3.
6. ~~Group R-3 and R-4 congregate residences shall be permitted to have one *exit*.~~
6.~~7~~. *Exits* serving specific spaces or areas need not be accessed by the remainder of the story when all of the following are met:
   - 6.1.~~7.1.~~ The number of *exits* from the entire story complies with Section 1021.2.4;
   - 6.2.~~7.2.~~ The access to *exits* from each individual space in the story complies with Section 1015.1; and
   - 6.3.~~7.3.~~ All spaces within each portion of a story shall have access to the minimum number of *approved* independent *exits* based on the *occupant loa*d of that portion of the story, but not less than two exits.

Reason: Exception #6 was added by Proposal E5-09/10 but a reason for the exception was not given in the reason statement accompanying the proposal and there is no corresponding provision in the 2009 IBC. Note that the deletion has no effect on Group R-3 occupancies in that are permitted to have one exit by Exception #2.

Cost Impact: The code change proposal will not increase the cost of construction.

E132-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1021.2-E-Brazil.doc

E133 – 12
1021.2, 1021.2.4 (IFC [B] 1021.2, 1021.2.4)

Proponent: Dennis Richardson, PE; Building Official, City of Salinas, representing Tri-Chapter (Peninsula, East Bay and Monterey Bay Chapters of ICC) (dennisrichardsonpe@yahoo.com)

Revise as follows:

1021.2 (IFC [B] 1021.2) Exits from stories. Not less than two *exits*, or *exit access stairways* or *ramps* providing access to *exits*, shall be provided from any occupied portion of a story or occupied roof ~~shall be provided~~ where one of the following conditions exists:

1. The *occupant load* or number of *dwelling units* exceeds one of the values in Table 1021.2(1) or 1021.2(2).
2. The *exit access* travel distance exceeds that specified in Table 1021.2(1) or 1021.2(2) as determined in accordance with the provisions of Section 1016.1.
3. *Helistop* landing areas located on buildings or structures shall be provided with two *exits*, or *exit access stairways* or *ramps* providing access to exits.

Exceptions:

1. Rooms, areas and spaces complying with Section 1015.1 with *exits* that discharge directly to the exterior at the *level of exit discharge*, are permitted to have one *exit*.
2. Group R-3 occupancy buildings shall be permitted to have one *exit*.
3. Parking garages where vehicles are mechanically parked shall be permitted to have one *exit*.
4. Air traffic control towers shall be provided with the minimum number of *exits* specified in Section 412.3.
5. Individual *dwelling units* in compliance with Section 1021.2.3.
6. Group R-3 and R-4 congregate residences shall be permitted to have one *exit*.
7. ~~*Exits* serving specific spaces or areas need not be accessed by the remainder of the story when all of the following are met:~~
   - ~~7.1. The number of *exits* from the entire story complies with Section 1021.2.4;~~
   - ~~7.2 . The access to *exits* from each individual space in the story complies with Section 1015.1; and~~
   - ~~7.3. All spaces within each portion of a story shall have access to the minimum number of *approved* independent *exits* based on the *occupant load* of that portion of the story, but not less than two exits.~~

1021.2.4 (IFC [B] 1021.2.4) Three or more exits. Three *exits*, or *exit access stairways* or *ramps* providing access to *exits* at other stories, shall be provided from any portion of a story or occupied roof with an *occupant load* from 501 to and including 1,000. Four *exits*, or *exit access stairways* or *ramps* providing access to *exits* at other stories, shall be provided from any portion of a story or occupied roof with an *occupant load* greater than 1,000.

Reason: Exception 7 was proposed by the proponent of this code change as E120-09/10 and was an exception offering relief from the newly changed requirement found in the 2009 IBC: "All spaces within each story shall have access to the minimum number of approved independent exits as specified in Table 1021.1 based on the occupant load of the story." That provision in the 2009 IBC created problems when one of the required exits from a story was located in a portion of the story exclusively occupied by a large tenant thus prohibiting access to a third or fourth exit to the story by other smaller tenant areas. E120-09/10 was approved as submitted. When E5-09/10 also was approved it deleted the requirement in quotes above. The proponents of E5-09/10 relied on basic principles of egress to ensure all required exit access doors from spaces would have access to the minimum required number of independent exits however no specific requirement appeared in E-5-09/10. It appears exception 7 may have been used out of context by the Correlation Committee as a bandaid for this requirement.

A separate code change is offered this cycle requiring exit access doors from spaces to lead to separate exits in order to be considered as contributing to the total number of exits or exit access doorways required by Section 1015.1. Assuming this change

passes and with the revised language proposed for Sections 1021.2 and 1021.2.4 contained in this proposal, exception 7, which is out of context, is no longer needed to ensure all spaces have access to the minimum number of *exits* or *exit access doors.*

Cost Impact: This code change will not increase the cost of construction.

E133-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1021.2-E-Richardson.doc

E134– 12
Table 1021.2(2), (IFC [B] Table 1021.2(2))

Proponent: Gregory R. Keith, Professional heuristic Development, representing The Boeing Company (grkeith@mac.com); Maureen Traxler, representing City of Seattle Department of Planning and Development (maureen.traxler@seattle.gov)

Revise as follows:

TABLE 1021.2(2) (IFC [B] 1021.2(2))
STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR OTHER OCCUPANCIES

STORY	OCCUPANCY	MAXIMUM OCCUPANTS PER STORY	MAXIMUM EXIT ACCESS TRAVEL DISTANCE
First story or basement	A, B[b], E F[b], M, U, ~~S[b]~~	49 occupants	75 feet
	H-2, H-3	3 occupants	25 feet
	H-4, H-5, I, R-1, R-2[a,c], R-4	10 occupants	75 feet
	S[b,d]	29 occupants	~~100~~ 75 feet
Second story	B, F, M, S[d]	29 occupants	75 feet
Third story and above	NP	NA	NA

For SI: 1 foot = 304.8 mm.
NP – Not Permitted
NA – Not Applicable

a. Buildings classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with emergency escape and rescue openings in accordance with Section 1029.
b. Group B, F and S occupancies in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 shall have a maximum travel distance of 100 feet.
c. This Table is used for R-2 occupancies consisting of sleeping units. For R-2 occupancies consisting of dwelling units, use Table 1021.2(1).
d. The length of exit access travel distance in a Group S-2 open parking garage shall be not more than 100 feet (30 480 mm).

Reason: Table 1021.2(2) currently contains a technical conflict. That is, within the "First story or basement" line, Group S occupancies are listed twice with differing occupant load and exit access travel distance thresholds. Rather than arbitrarily selecting one of the two sets of values, they have been adjusted so as to coincide with the requirements for multiple exits or exit access doorways from spaces. Table 1015.1 allows for single exits/exit access in Group S occupancies where the occupant load is 29 or less. Table 1014.3 limits the common path of egress travel in Group S occupancies to 75 feet in unsprinklered buildings and 100 feet in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. Additionally, Table 1014.3, Footnote d permits 100 feet for common path of egress travel in Group S-2 open parking garages. The proposed corrections to Table 1021.2(2) eliminate internal conflicts and are consistent with multiple exit thresholds found elsewhere in the IBC.

Cost Impact: None

E134-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

T1021.1(2)-E-Keith-Traxler.doc

E135 – 12
1021.2.1 (IFC [B] 1021.2.1)

Proponent: Steve Pfeiffer representing City of Seattle, Department of Planning & Development (steve.pfeiffer@seattle.gov)

Revise as follows:

1021.2.1 (IFC [B] 1021.2.1) Mixed occupancies. Where one exit, or exit access stairway or ramp providing access to exits at other stories, is permitted to serve individual stories, mixed occupancies shall be permitted to be served by single exits provided each individual occupancy complies with the applicable requirements of Table 1021.2(1) or Table 1021.2(2) for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1.

In each story of a mixed occupancy building, the maximum number of occupants served by a single exit shall be such that the sum of the ratios of the calculated number of occupants of the space divided by the allowable number of occupants for each occupancy does not exceed one.

<u>In each story containing both Group R-2 dwelling units and other occupancies, the maximum number of dwelling units and occupants served by a single exit shall be such that the sum of the ratios of the actual number of dwelling units divided by 4, plus the calculated number of occupants of the rest of the story, divided by the allowable number of occupants for each occupancy, does not exceed one.</u>

Reason: This change allows use of the "unity" formula when a story contains both dwelling units and some other occupancy. For example, a second story would be permitted to be served by a single exit if it contained one dwelling unit and an office with an occupant of 21 or fewer ($1/4 + 21/29 = 0.974 \leq 1$). Or, a second story could contain three dwellings and an office with an occupant load of 7 or fewer, yet still be served by a single exit ($3/4 + 7/29 = 0.991 \leq 1$). The first paragraph of this section requires each occupancy to comply with the travel distance requirements in the table.

Cost Impact: The code change proposal will not increase the cost of construction.

E135-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1021.2.1-E-Pfeiffer.doc

E136 – 12
1021.3.1 (IFC [B] 1021.3.1)

Proponent: Jonathan Siu, City of Seattle Dept of Planning & Development representing Washington Association of Building Officials Technical Code Development Committee (jon.siu@seattle.gov)

Revise as follows:

1021.3.1 (IFC [B] 1021.3.1) Access to exits at adjacent levels. Access to exits at other levels shall be by stairways or ramps. Where access to exits occurs from adjacent building levels, the horizontal and vertical exit access travel distance to the closest exit shall not exceed that specified in Section 1016.1. ~~Access to exits at other levels shall be from an adjacent story.~~ The path of egress travel to an *exit* shall not pass through more than one adjacent story.

Reason: This proposal is intended to clarify the requirement for exit accesses leading to an exit that is located on another story. The intent of the last sentence in Section 1021.3.1 is to prohibit having an occupant travel more than one story via an exit access stairway or ramp to reach an exit. However, as written, the language is confusing and can be read to say that all exits must be accessed from an adjacent story. We believe the requirement can be stated more clearly as we have proposed.

Cost Impact: The code change proposal will not increase the cost of construction.

E136-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1021.3.1-E-Siu.doc

E137 – 12
1022.1(IFC [B] 1022.1)

Proponent: Paul Armstrong, P.E., CBO, City of El Monte representing the ICC Orange Empire Chapter Code Committee (paul@jaspacific.com)

Revise as follows:

1022.1 (IFC [B] 1022.1) General. Interior exit stairways and interior exit ramps serving as an exit component in a means of egress system shall comply with the requirements of this section. Interior exit stairways and ramps shall be enclosed and lead directly to the exterior of the building or shall be extended to the exterior of the building with an extended exit passageway conforming to the requirements of Section 1023, except as permitted in Section 1027.1. An interior exit stairway or ramp shall not be used for any purpose other than as a means of egress.

Reason: Editorial revision. The proposed revision is added for clarification to the requirement for protection of interior exit stairways or ramps as found in Chapter 2, Definitions.

Cost Impact: The code change proposal will not increase the cost of construction.

E137-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1022.1-E-Armstrong.doc

E138 – 12
1022.1, 1023.1 (IFC [B] 1022.1, 1023.1)

Proponent: Lee J. Kranz, City of Bellevue, Washington, representing Washington Association of Building Officials Technical Code Development Committee (lkranz@bellevuewa.gov)

Revise as follows:

1022.1 (IFC [B] 1022.1) General *Interior exit stairways* and *interior exit ramps* serving as an *exit* component in a *means of egress system* shall comply with the requirements of this section. *Interior exit stairways* and *ramps* shall lead directly to the exterior of the building or shall be extended to the exterior of the building with an *exit passageway* conforming to the requirements of Section 1023, except as permitted in Section 1027.1. An *interior exit stairway* or *ramp* shall not be used for any purpose other than as a means of egress <u>and a circulation path</u>.

<u>**Exception**: An interior exit stairway or ramp shall be permitted to be used as a circulation path.</u>

1023.1 (IFC [B] 1023.1) General E*xit passageways* serving as an *exit* component in a *means of egress system* shall comply with the requirements of this section. An *exit passageway* shall not be used for any purpose other than as a means of egress <u>and a circulation path</u>.

<u>**Exception**: An interior exit passageway shall be permitted to be used as a circulation path.</u>

Reasoning: Although the code text, as currently written, does not specifically prohibit interior exit stairways, ramps and exit passageways from being used as a circulation path or as a path of entry into a building, it could be interpreted that way. Interior exit stairways, ramps and passageways are commonly used by building occupants to access other floors or areas on the same floor for convenience purposes.

According to official IBC Interpretation 27-08 ~~(see attached copy)~~ issued on March 6, 2009 by ICC staff "An exit passageway provides a protected path of egress travel in a horizontal direction to the exit discharge or the public way. While this provision states that the exit passageway shall not be used for any purpose other than as a means of egress, similar to an exit enclosure, the intent is to limit openings to those necessary for exit access to the exit passageway from normally occupied spaces and for egress from the exit passageway in addition to prohibiting the exit passageway from being used for storage or the placement of furniture, vending machines, etc., because these situations may obstruct the path of exit travel and, if the materials are combustible, create a life safety hazard. The code does not specifically prohibit the exit passageway from also being used as a path of entry into a building."

The proposed exception to Section 1022.1 for interior exit stairways and ramps and to Section 1023.1 for exit passageways will add clarity on this issue and will not diminish life safety for the means of egress. Note: the term "Circulation path" is defined in IBC Chapter 2.

Cost Impact: None

E138-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1022.1-E-KRANZ

E139 – 12
1022.2 (IFC [B] 1022.2)

Proponent: David S. Collins, FAIA, The Preview Group, Inc. representing The American Institute of Architects (dcollins@preview-group.com)

Revise as follows:

1022.2 (IFC [B] 1022.2) Construction. Enclosures for interior exit stairways and ramps shall be constructed as fire barriers in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both. Interior exit stairway and ramp enclosures shall have a fire-resistance rating of not less than 2 hours where connecting four stories or more and not less than 1 hour where connecting less than four stories. The number of stories connected by the interior exit stairways or ramps shall include any basements, but not any mezzanines. Interior exit stairways and ramps shall have a fire-resistance rating not less than the floor assembly penetrated, but need not exceed 2 hours.

Exceptions:

1. Interior exit stairways and ramps in Group I-3 occupancies in accordance with the provisions of Section 408.3.8.
2. Interior exit stairways within an atrium enclosed in accordance with Section 404.6.

Reason: Section 1022.2 requires an enclosure of an interior exit stair by a 1 hour or 2 hour passive enclosure. Section 1022.1 limits the use of the enclosure to only egress purposes. Section 404 for atriums requires that the space be enclosed by a 1-hour passive enclosure and also protected by various active systems including fire suppression and smoke control features. The natural configuration of an atrium affords building occupants with immediate views of the entire egress to the bottom of the atrium.

In addition to immediate additional life safety of the occupants because of the openness, there are ancillary health benefits for building occupants to safely use the stairs to traverse from one level to another even when the stair is not being used in an emergency.

Cost Impact: The use of the atrium as an exit stair will reduce the cost of construction.

E139-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1022.2-E-Collins.doc

E140 – 12
1022.3 (IFC [B] 1022.3)

Proponent: Dennis Richardson, PE; Building Official, City of Salinas, representing Tri-Chapter (Peninsula, East Bay and Monterey Bay Chapters of ICC) (dennisrichardsonpe@yahoo.com)

Revise as follows:

1022.3 (IFC [B] 1022.3) Termination. *Interior exit stairways* and *ramps* shall terminate at an *exit discharge* or a *public way*.

> **Exception:** ~~*Interior exit stairways* and *ramps* shall be permitted to terminate at an *exit passageway* complying with Section 1023, provided the *exit passageway* terminates at an *exit discharge* or a *public way*.~~ A combination of interior exit stairways, interior exit ramps and exit passageways, constructed in accordance with Sections 1022.2, 1022.3.1 and 1023 and forming a continuous protected enclosure, shall be permitted to extend an interior exit stairway or ramp to the exit discharge or a public way.

Reason: Current language requires interior exit stairways and ramps (formerly exit enclosures) to lead directly to the exterior of the building or shall be extended by an exit passageway to the exterior of the building. This change would allow a combination of interior exit stairs, ramps, and passageways to from a continuous protected enclosure to the exterior of a building. It is practice to utilize exit passageways and ramps as required to extend or connect the exit enclosure protection horizontally at building offsets and other obstructions until the stairway can then again proceed downward ultimately terminating at a discharge or being extended to the discharge. The code language does not appear to recognize this practice although the 2012 IBC Code and Commentary, Figure 1011.1 gives this example to illustrate exit signs within an exit enclosure.

Cost Impact: This code change will not increase the cost of construction.

E140-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1022.3-E-Richardson.doc

E141 – 12
1022.3.1 (IFC [B] 1022.3.1)

Proponent: Dennis Richardson, PE; Building Official, City of Salinas, representing Tri-Chapter (Peninsula, East Bay and Monterey Bay Chapters of ICC) (dennisrichardsonpe@yahoo.com)

Revise as follows:

1022.3.1 (IFC [B] 1022.3.1) Extension. Where *interior exit stairways* and *ramps* are extended to an *exit discharge* or a *public way* by an *exit passageway*, the *interior exit stairway* and *ramp* shall be separated from the *exit passageway* by a *fire barrier* constructed in accordance with Section 707 or a *horizontal assembly* constructed in accordance with Section 711, or both. The *fire-resistance rating* shall be at least equal to that required for the *interior exit stairway* and *ramp*. A *fire door* assembly complying with Section 716.5 shall be installed in the *fire barrier* to provide a *means of egress* from the *interior exit stairwa*y and *ramp* to the *exit passageway*. Openings in the *fire barrier* other than the *fire door* assembly are prohibited. Penetrations of the *fire barrier* are prohibited.

~~Exception~~ Exceptions:

1. Penetrations of the *fire barrier* in accordance with Section 1022.5 shall be permitted.
2. Separation between an interior exit stairway or ramp and the exit passageway shall not be required if there are no openings or penetrations in the exit passageway.

Reason: It is practice to utilize exit passageways and ramps as required to extend or connect the exit enclosure protection horizontally at building offsets and other obstructions until the stairway can then again proceed downward ultimately terminating at a discharge or being extended to the discharge. The purpose in having a door at this interface in the existing requirement is to prevent smoke from a possible open door or other penetration in the passageway from traveling up the exit enclosure. This is prevented if there are no openings or penetrations in the exit passageway. The exit passageway is constructed strictly as an extension of the enclosure at a horizontal offset. Egress can proceed faster if there are not intermediate doors contained at the enclosure transitions.

Cost Impact: This code change will not increase the cost of construction.

E141-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1022.3.1-E-Richardson.doc

E142 – 12
1022.3.1 (IFC [B] 1022.3.1)

Proponent: Ray Grill, P.E., Arup, representing self (Ray.Grill@arupgp.com)

Delete without substitution:

~~**1022.3.1 (IFC [B] 1022.3.1) Extension.** Where *interior exit stairways* and *ramps* are extended to an *exit discharge* or a *public way* by an *exit passageway*, the *interior exit stairway* and *ramp* shall be separated from the *exit passageway* by a *fire barrier* constructed in accordance with Section 707 or a *horizontal assembly* constructed in accordance with Section 711, or both. The *fire-resistance rating* shall be at least equal to that required for the *interior exit stairway* and *ramp*. A *fire door* assembly complying with Section 716.5 shall be installed in the *fire barrier* to provide a *means of egress* from the *interior exit stairway* and *ramp* to the *exit passageway*. Openings in the *fire barrier* other than the *fire door* assembly are prohibited. Penetrations of the *fire barrier* are prohibited.~~

~~**Exception:** Penetrations of the *fire barrier* in accordance with Section 1022.5 shall be permitted~~.

Reason: The requirement for a door between an exit enclosure and an exit passageway creates a restriction to occupant movement during emergency egress. An exit passageway has the same basic requirements as an exit enclosure and therefore does not present a hazard to the exit enclosure. There was no technical argument for requiring it when it was first introduced in the 2009 edition of the code.

The code allows an exception for the fire rated separation and door between an exit enclosure and an exit passageway when stair pressurization is provided that includes pressurization of the passageway. If an exit is pressurized and there is an exit passageway as part of the stair, the passageway is required to be pressurized.

There is a companion code change to address the pressurized exit enclosure used with a passageway.

Cost Impact: None

E142-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1022.3.1-E-Grill.doc

E143– 12
1022.5, 1023.5, 1023.6 (IFC [B] 1022.5, 1023.5, 1023.6)

Proponent: Gregory R. Keith, Professional heuristic Development, representing The Boeing Company (grkeith@mac.com)

Revise as follows:

1022.5 (IFC [B] 1022.5) Penetrations. Penetrations into ~~and openings~~ or through interior exit stairways and ramps are prohibited except for ~~required exit doors,~~ equipment and ductwork necessary for independent ventilation or pressurization, sprinkler piping, standpipes, electrical raceway for fire department communication systems and electrical raceway serving the interior exit stairway and ramp and terminating at a steel box not exceeding 16 square inches (0.010 m^2). Such penetrations shall be protected in accordance with Section 713. There shall be no penetrations or communication openings, whether protected or not, between adjacent interior exit stairways and ramps.

Exception: Membrane penetrations shall be permitted on the outside of the interior exit stairway and ramp. Such penetrations shall be protected in accordance with Section 713.3.2.

1023.5 (IFC [B] 1023.5) Openings ~~and penetrations~~. Exit passageway opening protectives shall be in accordance with the requirements of Section 716.

Except as permitted in Section 402.8.7, openings in exit passageways other than unprotected exterior openings shall be limited to those necessary for exit access to the exit passageway from normally occupied spaces and for egress from the exit passageway.

Where an interior exit stairway or ramp is extended to an exit discharge or a public way by an exit passageway, the exit passageway shall also comply with Section 1022.3.1.

Elevators shall not open into an exit passageway.

1023.6 (IFC [B] 1023.6) Penetrations. Penetrations into ~~and openings~~ or through an exit passageway are prohibited except for ~~required exit doors~~, equipment and ductwork necessary for independent pressurization, sprinkler piping, standpipes, electrical raceway for fire department communication and electrical raceway serving the exit passageway and terminating at a steel box not exceeding 16 square inches (0.010m^2). Such penetrations shall be protected in accordance with Section 714. There shall be no penetrations or communicating openings, whether protected or not, between adjacent exit passageways.

Exception: Membrane penetrations shall be permitted on the outside of the exit passageway. Such penetrations shall be protected in accordance with Section 714.3.2.

Reason: Section 1022 subsection titles were revised for 2012. Section 1022.4 is re-titled, "Openings." Formerly, the section was titled "Openings and penetrations" in the 2009 Edition of the IBC although former Section 1022.4 (current section 1022.5) was titled "Penetrations." It is consistent with many IBC sections to distinguish between provisions applicable to openings and penetrations.

Although the section titles were corrected, the provisions contained within the sections were not. This proposal removes the references to opening protection requirements from Section 1022.5. There is no need to relocate them since Section 1022.4 already addresses identical interior exit stairway and ramp door limitations. Approval of this proposal will create editorial consistency in IBC opening and penetration protection requirements.

The proposed changes to Section 1023.5 is for consistency between exit stairway or ramp requirements and exit passageway requirements.

Cost Impact: None

E143-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1022.5-E-Keith.doc

E144-12
1022.10(New); [IFC [B] 1022.10 (New)]

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Add new text as follows:

1022.10 (IFC [B] 1022.10) Elevator Lobby identification signs. At landings in interior exit stairways where two or more doors lead to the floor level, the door leading to the elevator lobby shall be identified by signage located on the door or directly adjacent to the door stating "Elevator Lobby." Signage shall be in accordance with Section 1022.9.1 Items 4, 5 and 6.

(Renumber subsequent sections)

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

This proposal is one of several proposals submitted by the CTC Elevator lobby SG. The ICC Executive Board directed the Code Technology Committee (CTC) to study the issue of elevator lobby separations in November 2010 due to the number of code change proposals submitted addressing this issue over a number of code change cycles. The Code Technology Committee formed a study group on the elevator lobby separation issue in December 2010. Note that this subject had been previously addressed by CABO/BCMC in 1986 with a similar conclusion. The code change proposals submitted are the result of the CTC's study of the issue. Note that the scope of the activity was as follows:

Scope

- Review the need for elevator lobbies**,** with emphasis on building use, building and hoistway height, active and passive fire protection features associated with the aforementioned.
- Review the differences and specific needs when dealing with elevator lobbies of traditional-use elevators, fire service elevators, and occupant evacuation elevators.
- Review related code provisions, such as egress from and through elevator lobbies.
- Review the appropriate use of alternatives including pressurization of hoistways, additional doors, roll-down style barriers, and gasketing systems.
- Review with members of elevator industry to scope the requirements of applicable elevator reference standards as it deals with elevator lobby design, use and construction.
- Review design and construction requirements for elevator lobbies, including but not limited to dimensions, location and separation.
- Review applicable code change history, technical studies and loss statistics as part of this review.

Based upon the extensive nature of this area of study**,** 5 Task Groups were formed during the process to provide in-depth review and to manage the number of issues. These task groups developed a number of proposals that were coordinated throughout the process.

More information on this CTC area of study can be found at the following link.
http://www.iccsafe.org/cs/CTC/Pages/ElevatorLobbies.aspx

The focus is on necessary signage for entrance into elevator lobbies from interior exit stairway landings. This issue is more specific to Fire service access elevators and the potential for multiple required doors. The code currently requires direct access from the lobby to a stairway and additionally the same stairway must have a door that opens directly to the floor based upon standpipe access issues (i.e. limiting the number of doors that need to be open to lay hose during a fire). Fire fighters and occupants need to readily determine which door leads to the enclosed elevator lobby therefore signage is necessary to assist in wayfinding. The enclosed elevator lobby could be for fire service access elevators (FSAE) or occupant evacuation elevators. Since the signage need can apply to either type of enclosed elevator lobby and is related to interior exit stairways the requirements are proposed in Section 1022.

See discussion on CTC elevator lobby proposal coordination in code change FS##-12

Cost impact:

E144-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1022.10-E-BALDASSARRA-CTC.docx

E145 – 12
1022.10, 1022.10.1 (IFC [B] 1022.10, 1022.10.1)

Proponent: Homer Maiel, PE, CBO, Town of Atherton representing ICC Tri-Chapter (Peninsula, East Bay, and Monterey Bay)

Revise as follows:

1022.10 (IFC [B] 1022.10) Smokeproof enclosures ~~and pressurized stairways and ramps~~. Where required by Section 403.5.4 or 405.7.2, *interior exit stairways* and *ramps* shall be *smokeproof enclosure* ~~or pressurized *stairway* or *ramps*~~ in accordance with Section 909.20.

1022.10.1 (IFC [B] 1022.10.1) Termination and extension. A *smokeproof enclosure* ~~or pressurized *stairway*~~ shall terminate at an *exit discharge* or a *public way*. The *smokeproof enclosure* or ~~pressurized *stairway*~~ shall be permitted to be extended by an *exit passageway* in accordance with Section 1022.2. The *exit passageway* shall be without openings other than the *fire door assembly* required by Section 1022.2 and those necessary for egress from the *exit passageway*. The *exit passageway* shall be separated from the remainder of the building by 2-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 712, or both.

Exceptions:

1. Openings in the *exit passageway* serving a *smokeproof enclosure* are permitted where the *exit passageway* is protected and pressurized in the same manner as the *smokeproof enclosure*, and openings are protected as required for access from other floors.
~~2. Openings in the exit passageway serving a pressurized stairway are permitted where the exit passageway is protected and pressurized in the same manner as the smokeproof enclosure or pressurized stairway.~~
2~~3~~. The *fire barrier* separating the *smokeproof enclosure* ~~or pressurized *stairway*~~ from the *exit passageway* is not required, provided the *exit passageway* is protected and pressurized in the same manner as the *smokeproof enclosure* ~~or pressurized *stairway*~~.
3~~4~~. A *smokeproof enclosure* ~~or pressurized *stairway*~~ shall be permitted to egress through areas on the level of discharge or vestibules as permitted by Section 1027.

Reason: The way that the current code language is, it gives the code users the impression that pressurized stairway is different from smokeproof enclosure. It is not. In fact pressurized stairway is a SPECIAL case of the smokeproof enclosure. In Chapter 9, smokeproof enclosure is covered under Section 909.20. In there, it specifies that in order to enter a smokeproof enclosure, one needs to first enter either an open exterior balcony or a ventilated vestibule. Then this section is followed by sub-Sections 909.20.1 through 909.20.4 on how to build this smokeproof enclosure. Then, comes Section 909.20.5 which is also a subsection to 909.20. In there, it gives the individual the option of eliminating vestibule if the enclosure is pressurized. All other subsections to 909.20 that deal with smoke proof enclosure still apply (ie, construction, door closure, etc.). By striking "pressurized stairway" this section becomes much simpler and cleaner. Also by doing so, Exception 2 becomes redundant

Cost Impact: This code change will not increase the cost of construction.

E145-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1022.19-E-Maiel.doc

E146–12
1022.10.1 (IFC [B] 1022.10.1)

Proponent: Ray Grill, P.E., Arup, representing self (Ray.Grill@arupgp.com)

Revise as follows:

1022.10.1 (IFC [B] 1022.10.1) Termination and extension. A *smokeproof enclosure* or pressurized *stairway* shall terminate at an *exit discharge* or a *public way*. The *smokeproof enclosure* or pressurized *stairway* shall be permitted to be extended by an *exit passageway* in accordance with Section 1022.3. The *exit passageway* shall be without openings other than ~~the *fire door* assembly required by Section 1022.3.1 and~~ those necessary for egress from the *exit passageway*. The *exit passageway* shall be separated from the remainder of the building by 2-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both.

Exceptions:

1. Openings in the *exit passageway* serving a *smokeproof enclosure* are permitted where the *exit passageway* is protected and pressurized in the same manner as the *smokeproof enclosure*, and openings are protected as required for access from other floors.
2. Openings in the *exit passageway* serving a pressurized *stairway* are permitted where the *exit passageway* is protected and pressurized in the same manner as the pressurized *stairway*.
3. ~~The *fire barrier* separating the smokeproof enclosure or pressurized *stairway* from the *exit passageway* is not required, provided the *exit passageway* is protected and pressurized in the same manner as the *smokeproof enclosure* or pressurized *stairway*.~~

4~~3.~~ A *smokeproof enclosure* or pressurized *stairway* shall be permitted to egress through areas on the *level of exit discharge* or vestibules as permitted by Section 1027.

Reason: Exit passageways providing continuity of smokeproof enclosures or pressurized stairways are required to be protected in the same manner as the smokeproof enclosure or pressurized stairway. The current code language implies that it would **not** have to protected in the same manner and creates confusion for designers.

Cost Impact: None

E146-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1022.10.1-E-Grill.doc

E147 – 12
1023.3 (IFC [B] 1023.3)

Proponent: Dennis Richardson, PE; Building Official, City of Salinas, representing Tri-Chapter (Peninsula, East Bay and Monterey Bay Chapters of ICC) (dennisrichardsonpe@yahoo.com)

Revise as follows:

1023.3 (IFC [B] 1023.3) Construction. *Exit passageway* enclosures shall have walls, floors and ceilings of not less than a 1-hour *fire-resistance rating*, and not less than that required for any ~~connecting~~ *interior exit stairway* or *ramp* served. *Exit passageways* shall be constructed as *fire barriers* in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both.

Reason: There are situations where a one hour rated exit passageway connects to a two hour rated interior exit stairway but does not serve as an extension of the interior exit stairway. This occurs when the one hour exit passageway precedes the two hour interior exit stairway or ramp and is utilized on a particular floor of a multi-story one hour rated building to decrease exit access travel distance. The opening and fire barrier between the one hour exit passageway and two hour interior exit stairway is as required for continuity of the two hour interior exit stairway construction as found in 1022.2 and 716. Because of continuity requirements in chapter 7 for fire barriers and horizontal assemblies it is not feasible to construct a 2 hour rated exit passageway across the upper floors of a one hour rated building. As revised, whenever an exit passageway serves an interior exit stairway or ramp the passageway would still be rated as required for the interior exit stairway or ramp.

Cost Impact: This code change will not increase the cost of construction.

E147-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1022.3.1-E-Richardson.doc

E148 – 12
1023.7(New) [IFC [B] 1023.7(New)]

Proponent: Larry Lincoln, Salt Lake City Corporation representing Utah Chapter of International Code Council

Add new text as follows:

1023.7 (IFC [B] 1023.7) Ventilation. Equipment and ductwork for *exit passageway* ventilation as permitted by Section 1023.6 shall comply with one of the following:

1. The equipment and ductwork shall be located exterior to the building and shall be directly connected to the *exit passageway* by ductwork enclosed in construction as required for shafts.
2. Where the equipment and ductwork is located within the *exit passageway*, the intake air shall be taken directly from the outdoors and the exhaust air shall be discharged directly to the outdoors, or the air shall be conveyed through ducts enclosed in construction as required for shafts.
3. Where located within the building, the equipment and ductwork shall be separated from the remainder of the building, including other mechanical equipment, with construction as required for shafts.

In each case, openings into the fire-resistance-rated construction shall be limited to those needed for maintenance and operation and shall be protected by opening protectives in accordance with Section 716 for shaft enclosures.

Exit passageway ventilation systems shall be independent of other building ventilation systems.

Reason: Ventilation for exit passageways is currently not addressed in (2012) IBC section 1023. Since an exit passageway is essentially an extension/continuation of the interior exit stairway to the exit discharge or to a public way, the sterility of the environment of the exit passageway should reflect that of an interior exit stairway. Therefore, this new section reflects and is essentially the same ventilation requirements found in IBC section 1022.6 for interior enclosed exit stairways.

Cost Impact: None

E148-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1023.7-E-Lincoln.doc

E149 – 12
1024.5 (IFC [B] 1024.5)

Proponents: Jack Bailey, One Lux Studio, representing The International Association of Lighting Designers (jbailey@oneluxstudio.com)

Revise as follows:

1024.5 (IFC [B] 1024.5) Illumination. Where *photoluminescent* exit path markings are installed, they shall be provided with ~~the minimum *means of egress* illumination required by Section 1006~~ not less than 1 footcandle (11 lux) of illumination for at least 60 minutes prior to periods when the building is occupied.

Reason: Stating the required illumination level here makes the code easier to use, and also makes it clear that illumination requirements for photoluminescent exit path markings are unrelated to illumination requirements for human vision. Furthermore, many people are confused by the two separate illumination requirements in Section 1006 (a **minimum** of 1 footcandle under normal power conditions, and an **average** of 1 footcandle under emergency power conditions), so a simple, clear statement in Section 1024.5 is better.

Cost Impact: The code change proposal will not increase the cost of construction.

E149-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1024.5-E-Bailey.doc

E150 – 12
202, 1025 (New) [IFC [B] 202, 1025 (New)]

Proponent: Jerry Anderson, LightSaver Technologies, Inc. representing LightSaver Technologies, Inc. (lightsavertech@gmail.com)

Add new definition as follows:

202
DEFINITIONS

EMERGENCY DOORWAY IDENTIFIER. A single station self-luminous audibly triggered supplemental visual notification alarm appurtenance.

Add new text as follows:

SECTION 1025 (IFC [B] 1025)
EMERGENCY DOOR IDENTIFIER; SUPPLEMENTAL ALARM APPURTENANCE

1025.1 (IFC [B] 1025.1) General. Where exit signs are required by Section 1011.1, an emergency doorway identifier device shall be installed .

1025.2 (IFC [B] 1025.2) Emergency doorway identifier. Emergency doorway identifiers shall be a linear light source that will illuminate, when activated, the entire periphery of an exit door assembly. The emergency doorway identifier shall illuminate when audible alarms are triggered or upon activation of the fire alarm or security system.

1025.3 (IFC [B] 1025.3) Adjacent area. Where lateral wall is available, emergency doorway identifiers shall be configured to light areas lateral to the door assembly along the top edge of baseboard for a minimum distance of not less than 6 inches (152 mm).

1025.4 (IFC [B] 1025.4) Testing. Where installed, emergency doorway identifiers shall be tested to verify their proper activation.

1025.5 (IFC [B] 1025.5) Installation. Emergency doorway identifiers shall be installed, inspected, tested, and maintained in accordance with the manufacturer's instructions.

1025.6 (IFC [B] 1025.6) Power Supply. Emergency Doorway Identifier shall provide illumination for a duration of not less than 90 minutes. In case of primary power loss, the emergency doorway identifier illumination means shall be connected to an emergency power system provided from storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Chapter 27.

Reason: The problem and the Emergency Doorway Identifier (EDI); a plausible part of the solution:

Quite simply; a smoke detector or fire alarm system will make a person aware of a fire; an Emergency Doorway Identifier will actually help a person locate a point of safe egress and resultingly; escape a fire. The emergency doorway identifier is the first innovation to clearly demark the exit in a fashion that even a young child can recognize and well below the line of smoke. EDI's are a tool that allow a person the maximum time possible to escape a smoke event (the ability to see the exit all the way down to the floor level) so that they might survive. This technology has not existed for long prior to the making of this proposal, therefore, there is no requirement for residential dwellings or other building or structures in existing code that require the use of EDI's. Although, the EDI's ability to dramatically increase the level of safety for occupants of any structure through its proven ability to clearly identify an exit in the form and fashion which EDI's are capable of will without doubt increase the chance of a persons survival in a smoke event. Unless made code, it will be up to the property owner to determine if EDI's provide tenants or the public the highest level of safety. By allowing local jurisdictions, to have the capability to adopt and require the use of EDI's to create safer environments for occupants within their jurisdictional geography will increase the likelihood of the appropriate use of this new technology as a best management practice.

Occupants deserve and should have the means to benefit from advancements in technology, especially inexpensive ones. Those who need and could utilize access to this technology most are "the most at risk from fire" (like children, elderly, visually impaired, hearing impaired and mentally disabled persons), but any occupant can benefit from its installation and use. There is a need to provide local jurisdictions with the ability to adopt and require the technology for the sake and safety of those whom are typically protected under any building or fire code; the governing jurisdiction's citizenry. Inclusion in the IBC and resulting adoption by local jurisdictions will create a safer building/structure environment for all and this can be accomplished generally through the requirement of developers, property operators and other property owners to insure this new safety measure in their properties as those buildings are developed, owned and/or operated. There is extremely insignificant cost associated with the adoption and use of EDI's relative to the typical properties' development or operating budgetary concerns and the payoff is priceless; i.e. the life of a human being and/or the avoidance of injury delivered through faster evacuation for others.

The modern fireground environment is riddled with materials that are more likely to feed fire to reach flashover in a shorter period of time. The increasing toxicity levels of the burning materials found in those firegrounds today regularly elevates occupant's and emergency responder personnel exposure to gasses and smokes that can kill or irreparably damage lungs in even small doses in very short periods of time. And, despite their incredible adeptness at doing more with less in every fire department in the land, fire departments across the nation are struggling with funding issues that directly hinder their ability to access the much needed funds to obtain and use the "absolute" highest standard of equipment and training. These phenomena can put everyone at a disadvantage. Some of this burden should be forced back upon the property operators and/or property owners to adopt the latest in fire-safety technological advancement; especially when they are as inexpensive as are EDI's.

EDI's offer a clear identification of the exit during the most life-and-injury critical time of a fire crisis; at the beginning and early stages of that fire. When a fire has just commenced happens to be when the person attempting to escape that fire has the greatest chance of survival; being within the first 2 minutes and PRIOR to the arrival of emergency personnel and usually at night (Karter 2008). When installed, EDI's allow every occupant, and especially "the most at risk from fire" (like children, elderly, visually impaired, hearing impaired and mentally disabled persons), the ability to quickly identify the exit by clearly demarking the outline the universally recognized shape of a door in an emergency pulse. And, EDI's are anything BUT inconspicuous when activated; especially in darkened or darkening settings like rooms filling with smoke in a fire.

Shorter periods of time to reach flashover due to modern materials
+ Financial and municipality budget pressures placed on firefighters that hinder their ability to perform and respond with to the absolute highest possible standard
+ <u>Higher toxicity levels of the smoke and gasses (carbon monoxide and cyanide) released in modern firegrounds</u>

= A growing compression of the time in the timeline for safe evacuation of occupants and the safety of the emergency personnel responding to these fires; which can, to a degree, be relieved with "On-Site" innovation and technology.

In America, there is a serious need to look to, and/or compel residents, developers, property operators, employers and others to adopt and utilize new technological advancements and embrace "on-site" means to raise the bar in the provision of safety in the structures that they or their tenants occupy. There is also a resounding need to decrease pressure on local firefighting responders to

the degree plausible and to ultimately create safer environs for all through creating, adopting and enforcing visionary code. History has shown that, if left to their own profit-driven devices, new advancements are almost certain to be overlooked by property operators; especially in difficult economic times and local jurisdictions now need a means through which these safer environs can be achieved through the enforcement of a jurisdictionally elected codified requirement of EDI's in their local efforts to achieve higher safety standards for their citizenry.

As the fire response timelines are compressed across America due to budgetary constraints on equipment and personnel and traffic congestion induced by concomitantly growing urban sprawl, ALL innovative, different and better "on-site" ways of assisting occupants AND responding emergency personnel deserve consideration and contemplation; lives depend on it.

According to the NFPA, about 85% of all U.S. fire deaths in 2009 occurred in homes [residential settings] (Karter 2011) and smoke is the leading cause of fire related deaths. Most victims of fires die from smoke or toxic gases and not from burns (Hall 2001). When fire strikes, seconds count, and every innovation designed to provide for faster response for those in harm's way leads to greater chances for escape and this seriously merits the attention of those building, overseeing, operating and profiting from an evacuee's tenancy or habitation in any regulated building or structure.

A Plausible Part of the Solution:

Visual Emergency Information Exactly WHERE & WHEN Needed

Emergency Doorway Identifiers speed-up exit identification and enhance the location thereof by occupants in crisis incidents and similarly expedite the delivery of critical information exactly where needed and always below the smoke layer to assist evacuees during such an emergency crisis by brightly illuminating the whole exit in the critical moments before smoke becomes deadly and long before first responding emergency personnel can even hope to reach the scene (irrespective of response times). Emergency Doorway Identifiers provide an immediately and widely available **cost effective** solution for the identification of an exit during a fire or smoke event in a residence or any structure. The EDI provides its visual information from the top of an exit discharge all the way to the floor (and along the floors flanking the exit) which, by definition is ALWAYS WELL BELOW THE LINE OF SMOKE. By completely outlining and highlighting the exit's complete periphery, the EDI provides bright emergency light in the "exact" areas where needed as smoke fills a space (from the ceiling down) and at the "exact" times when needed. No other visual notification device can deliver this safety advantage to all occupants and to those entering the structure to save and or protect them.

Unique and Universally Recognized in an Emergency

Emergency Doorway Identifiers do not require the ability to read to detect the exit, thereby aiding the very young and people with visual disabilities, or other disabilities under the ADA, by providing a brightly illuminated outline of the universally recognized shape of a door quickly; thereby expediting a more prompt evacuation in a fire or smoke event. Emergency Doorway Identifiers remain functional at the commencement of the crisis and throughout the entire fire or smoke event. EDI's provide an unmatched ability for door/exit identification during the critical minutes of the crisis; long before first responders arrive. From a design standpoint, they are virtually inconspicuous until they are alarmed and do not detract from the planned aesthetics of the structure, building or space.

Assists First-Responders

Importantly, Emergency Doorway Identifiers also **aid emergency personnel** who enter a residence or any structure by enhancing the possibilities for that personnel's identification of a clear identified means of egress, regardless of the smoke layer elevation at the time they enter to perform their duties. By identifying the exits and discharges through the deployment of EDI's, rescue personnel's search, rescue, extraction and firefighting activities and operations are enhanced dramatically at all times while operating in, on and around the structure and fireground.

Part of a Well Thought Out Escape Plan

The installation of Emergency Doorway Identifiers can provide superior, yet inexpensively obtained, inconspicuous and easily installed life saving technology in existing most specifically to residential occupancy properties which contain three or more dwelling units, hotels, motels, lodging houses, bed and breakfast facilities, and congregate residences, i.e. the locations where they are needed the most. A well thought out escape plan would also dictate that, in addition to common points of egress in a structure which lead to a complete discharge from the structure; Emergency Doorway Identifiers should be located in all sleeping rooms above the interior doorway leading to the exit as well as exit discharges to a public space in an effort to reduce injuries and save lives through the provision of a unique form of visual means of egress information delivered in areas when need most and at the exact times when such information is needed by occupants attempting evacuation and escape.

Tremendous Support from the Firefighter Community

For the most at risk from fire, which are seniors and children, EDI technology should be considered "a must" for their residential and care centers and its formal recognition via inclusion in the International Building Code along with efforts on the National Fire Protection Association's #101 Life Safety Code® (underway as of the writing of this proposal) will allow local jurisdictions to adopt utilization of the innovation much like that of the smoke detector in the 1970's. Countless firefighters and building professionals across the land support this technology and recognize its potential to save lives. The technology was tested in a live burn-down exercise with the fire service in Santa Rosa, CA in 2010, and the response of the nearly 100 firefighters of all ranks that participated therein was overwhelmingly positive given their understanding of its potential to assist them in their regular fireground search, rescue, extraction and firefighting duties in unfamiliar surroundings. Without exception, responses from the firefighting community throughout the US has been resoundingly positive for the adoption of this technology due to its logical ability to solve an age old problem for anyone caught in a structure when on fire.

An innovative, useful and potentially life-saving innovation of this sort should not be overlooked; especially given the insignificant cost to the developer, property operator and/or homeowner who stands to benefit in the largest of ways from its capabilities. Giving local jurisdictions the capacity and ability to compel the adoption and use of the EDI through code is key to creating safer environments for all and ultimately; saving lives.

To learn more please visit: Wikipedia http://en.wikipedia.org/wiki/Emergency_Doorway_Identifiers_%28EDI%27s%29
To see an EDI actually working, please visit: YouTube http://www.youtube.com/watch?v=XJ-haxhq2y8
A Manufacturer of EDI's website with information can be reviewed here: http://www.thelightthatsaveslives.com/

Cost Impact: The code change proposal will insignificantly and virtually unnoticeably increase the cost of construction. The installation of the EDI does not require the oversight of a licensed electrician or any other specialist. EDI's are available through a variety of suppliers at prices ranging from $49.50 to $139.00 per device (per door) depending on the quantity being purchased and the channel through which it is obtained. This pricing does not include labor for the simple installation which is estimated to range from 5 to 15 minutes per door.

E150-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

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E151 – 12
1025.1, 1025.4 (IFC [B] 1025.1, 1025.4)

Proponent: Dennis Richardson, PE; Building Official, City of Salinas, representing Tri-Chapter (Peninsula, East Bay and Monterey Bay Chapters of ICC) (dennisrichardsonpe@yahoo.com)

Revise as follows:

1025.1 (IFC [B] 1025.1) Horizontal exits. *Horizontal exits* serving as an *exit* in a *means of egress* system shall comply with the requirements of this section. A *horizontal exit* shall not serve as the only *exit* from a portion of a building, and where two or more *exits* are required, not more than one-half of the total number of *exits* or total exit width shall be *horizontal exits*.

Exceptions:

1. *Horizontal exits* are permitted to comprise two-thirds of the required *exits* from any building or floor area for occupancies in Group I-2.
2. *Horizontal exits* are permitted to comprise 100 percent of the *exits* required for occupancies in Group I-3. At least 6 square feet (0.6 m^2) of accessible space per occupant shall be provided on each side of the *horizontal exit* for the total number of people in adjoining compartments. Every compartment from which egress originates shall not be required to have a *stairway* or door leading directly outside, provided the adjoining compartment area into which a *horizontal exit* leads has *stairways* or doors leading directly outside and are so arranged that egress shall not require the occupants to return through the compartment from which egress originates.

1025.4 (IFC [B] 1025.4) Capacity of refuge area. The refuge area of a *horizontal exit* shall be a space occupied by the same tenant or a public area and each such refuge area shall be adequate to accommodate the original *occupant load* of the refuge area plus the *occupant load* anticipated from the adjoining compartment. The anticipated *occupant load* from the adjoining compartment shall be based on the capacity of the *horizontal exit* doors entering the refuge area. The capacity of the refuge area shall be computed based on a *net floor area* allowance of 3 square feet (0.2787 m2) for each occupant to be accommodated therein.

Exception: The *net floor area* allowable per occupant shall be as follows for the indicated occupancies:

1. Six square feet (0.6 m^2) per occupant for occupancies in Group I-3.
2. Fifteen square feet (1.4 m^2) per occupant for ambulatory occupancies in Group I-2.
3. Thirty square feet (2.8 m^2) per occupant for nonambulatory occupancies in Group I-2.

The refuge area into which a *horizontal exit* leads shall be provided with *exits* adequate to meet the occupant requirements of this chapter, but not including the added *occupant load* imposed by persons entering it through *horizontal exits* from other areas. At least one refuge area exit shall lead directly to the exterior or to an *interior exit stairway* or *ramp*.

~~**Exception:** The adjoining compartment shall not be required to have a *stairway* or door leading directly outside, provided the refuge area into which a *horizontal exit* leads has *stairways* or doors leading directly outside and are so arranged that egress shall not require the occupants to return through the compartment from which egress originates.~~

Reason: This Exception was created as part of E136-07/08. The report from that code cycle includes an analysis section that states: "An errata has been issued for section 1022.1, Exception 2. In the 2000 IBC this section had two paragraphs under the exception. The 2003 IBC and 2006 IBC show the second paragraph of Exception 2 moved out as a main section paragraph. There was no code change proposal to relocate this paragraph. Therefore, an errata has been issued for the 2003 and 2006 IBC to locate the paragraph starting "Every fire compartment…." As part of Exception 2."

The original language that was subject to the errata prior to E136 read as follows: “Every fire compartment for which credit is allowed in connection with a horizontal exit shall not be required to have a stairway or door leading directly outside, provided the adjoining fire compartments have stairways or doors leading directly outside and are so arranged that egress shall not require the occupants to return through the compartment from which egress originates.”

The proponent stated in the reason associated with E136 with regard to the paragraph above: “Secondly, the second paragraph of section 1022.1 currently contains some confusing language referencing a fire compartment credit concept that is not recognized anywhere in Chapter 110. The paragraph has been rewritten in more contemporary language while maintaining the original technical intent. Additionally, based on IBC errata, the provision in question was originally intended to be an exception. Accordingly, it has been retained as an exception; however, it also been placed in context following the proposed second paragraph of section 1022.4. Approval of this proposal will clarify the intent of the code and assist users in the proper determination of horizontal exit technical requirements.”

This code change merely deletes the revised E136 exception language (stated as an Exception to the second paragraph of Section 1025.4) and places it back as the second half of the exception 2 to Section 1025.1 (with minor changes to clarify the original intent of language prior to E136 and after the errata was applied). This location is consistent with the ICC errata and fits in from a context standpoint as the language refers to space on each side of the exit for adjoining compartments. In order to maintain this original intent the relocated exception language now starts off with “Every compartment from which egress originates…” in place of the pre E136 language “Every compartment for which credit is allowed in connection with a horizontal exit…” and the language follows by replacing “provided the adjoining compartments” from the pre E136 language with “provided the adjoining compartment area into which a *horizontal exit* leads….” This retains the original intent and clarifies the horizontal exits section which was also the intent of the E136-07/08 code change. The relocated and updated language (now in the second half of Section 1025.1, exception 2) as revised in this code change now properly describes the only situation where horizontal exits are permitted to comprise 100 percent of the exits in Group I-3.

Cost Impact: This code change does not increase the cost of construction.

E151-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1025.1-E-Richardson.doc

E152 – 12
1025.4 (IFC [B] 1025.4)

Proponent: Dennis Richardson, PE; Building Official, City of Salinas, representing Tri-Chapter (Peninsula, East Bay and Monterey Bay Chapters of ICC) (dennisrichardsonpe@yahoo.com)

Revise as follows:

1025.4 (IFC [B] 1025.4) ~~Capacity of~~ Refuge area. The refuge area of a *horizontal exit* shall be a space occupied by the same tenant or a public area and each such refuge area shall be adequate to accommodate the original *occupant load* of the refuge area plus the *occupant load* anticipated from the adjoining compartment. The anticipated *occupant load* from the adjoining compartment shall be based on the capacity of the *horizontal exit* doors entering the refuge area. The capacity shall be determined by dividing the horizontal exit door width by 0.20 inches (5.1 mm) per occupant.

> **Exception**: In buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the anticipated occupant load from the adjoining compartment shall be determined based on the anticipated portion of the occupant load as normally distributed but not less the capacity determined in this section for the horizontal exit door.

1025.4.1 (IFC [B] 1025.4.1) Capacity. The capacity of the refuge area shall be computed based on a *net floor area* allowance of 3 square feet (0.2787 m^2) for each occupant to be accommodated therein.

> **Exception:** The *net floor area* allowable per occupant shall be as follows for the indicated occupancies:
>
> 1. Six square feet (0.6 m^2) per occupant for occupancies in Group I-3.
> 2. Fifteen square feet (1.4 m^2) per occupant for ambulatory occupancies in Group I-2.
> 3. Thirty square feet (2.8 m^2) per occupant for nonambulatory occupancies in Group I-2.

1025.4.2 (IFC 1025.4.2) Number of exits. The refuge area into which a *horizontal exit* leads shall be provided with *exits* adequate to meet the occupant requirements of this chapter, but not including the added *occupant load* imposed by persons entering it through *horizontal exits* from other areas. At least one refuge area exit shall lead directly to the exterior or to an *interior exit stairway* or *ramp*.

> **Exception:** The adjoining compartment shall not be required to have a *stairway* or door leading directly outside, provided the refuge area into which a *horizontal exit* leads has *stairways* or doors leading directly outside and are so arranged that egress shall not require the occupants to return through the compartment from which egress originates.

Reason: This Exception was created as part of E136-07/08. The report from that code cycle includes an analysis section that states: "An errata has been issued for section 1022.1, Exception 2. In the 2000 IBC this section had two paragraphs under the exception. The 2003 IBC and 2006 IBC show the second paragraph of Exception 2 moved out as a main section paragraph. There was no code change proposal to relocate this paragraph. Therefore, an errata has been issued for the 2003 and 2006 IBC to locate the paragraph starting "Every fire compartment…." As part of Exception 2."

The original language that was subject to the errata prior to E136 read as follows: "Every fire compartment for which credit is allowed in connection with a horizontal exit shall not be required to have a stairway or door leading directly outside, provided the adjoining fire compartments have stairways or doors leading directly outside and are so arranged that egress shall not require the occupants to return through the compartment from which egress originates."

The proponent stated in the reason associated with E136 with regard to the paragraph above: "Secondly, the second paragraph of section 1022.1 currently contains some confusing language referencing a fire compartment credit concept that is not recognized anywhere in Chapter 110. The paragraph has been rewritten in more contemporary language while maintaining the original technical intent. Additionally, based on IBC errata, the provision in question was originally intended to be an exception. Accordingly, it has been retained as an exception; however, it also been placed in context following the proposed second paragraph of section 1022.4. Approval of this proposal will clarify the intent of the code and assist users in the proper determination of horizontal exit technical requirements."

This code change merely deletes the revised E136 exception language (stated as an Exception to the second paragraph of Section 1025.4) and places it back as the second half of the exception 2 to Section 1025.1 (with minor changes to clarify the original

intent of language prior to E136 and after the errata was applied). This location is consistent with the ICC errata and fits in from a context standpoint as the language refers to space on each side of the exit for adjoining compartments. In order to maintain this original intent the relocated exception language now starts off with "Every compartment from which egress originates…" in place of the pre E136 language "Every compartment for which credit is allowed in connection with a horizontal exit…" and the language follows by replacing "provided the adjoining compartments" from the pre E136 language with "provided the adjoining compartment area into which a *horizontal exit* leads…." This retains the original intent and clarifies the horizontal exits section which was also the intent of the E136-07/08 code change. The relocated and updated language (now in the second half of Section 1025.1, exception 2) as revised in this code change now properly describes the only situation where horizontal exits are permitted to comprise 100 percent of the exits in Group I-3.

Splitting the section into parts is editorial. Where the exceptions are applicable will be clearer.

Cost Impact: This code change does not increase the cost of construction.

E152-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1025.4-E-Richardson.doc

E153 – 12
202, 1026.6 (IFC [B] 202, 1026.6)

Proponent: Al Godwin, CBO, CPM, Aon Fire Protection Engineering representing Aon Fire Protection Engineering (al.godwin@aon.com)

Add new definition as follows:

SECTION 202
DEFINITIONS

OPEN-ENDED CORRIDOR. An interior corridor that is open on each end, and connects to an exterior *stairway* or *ramp* at each end with no intervening doors or separation from the corridor.

Revise as follows:

SECTION 1026 (IFC [B] 1026)
EXTERIOR EXIT STAIRWAYS AND RAMPS

1026.6 (IFC [B] 1026.6) Exterior stairway and ramp protection. *Exterior exit stairways* and *ramps* shall be separated from the interior of the building as required in Section 1022.2. Openings shall be limited to those necessary for egress from normally occupied spaces.

Exceptions:

1. Separation from the interior of the building is not required for occupancies, other than those in Group R-1 or R-2, in buildings that are no more than two stories above grade plane where a level of exit discharge serving such occupancies is the first story above grade plane.
2. Separation from the interior of the building is not required where the exterior stairway or ramp is served by an exterior ramp or balcony that connects two remote exterior stairways or other approved exits with a perimeter that is not less than 50 percent open. To be considered open, the opening shall be a minimum of 50 percent of the height of the enclosing wall, with the top of the openings no less than 7 feet (2134 mm) above the top of the balcony.
3. Separation from the interior of the building is not required for an exterior stairway or ramp located in a building or structure that is permitted to have unenclosed exit access stairways in accordance with Section 1009.3.
4. Separation from the ~~interior~~ *open-ended corridor* of the building is not required for *exterior stairways* or *ramps* ~~connected to open-ended *corridors*~~, provided that Items 4.1 through 4.5 are met:
   - 4.1 The building, including *open-ended corridors*, and *stairways* and *ramps*, shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
   - 4.2 The *open-ended corridors* comply with Section 1018.
   - 4.3 The *open-ended corridors* are connected on each end to an *exterior exit stairway* or *ramp* complying with Section 1026.
   - 4.4 The *exterior walls* and openings adjacent to the *exterior exit stairway* or *ramp* comply with Section1022.7.
   - 4.5 At any location in an *open-ended corridor* where a change of direction exceeding 45 degrees (0.79 rad) occurs, a clear opening of not less than 35 square feet (3.3 m^2) or an *exterior stairway* or *ramp* shall be provided. Where clear openings are provided, they shall be located so as to minimize the accumulation of smoke or toxic gases.

Reason: Breezeway stairs is what this section is talking about. Whether straight through the building with a stair on each side, or taking a turn somewhere during its path through the building with a stair on either end, it is still a breezeway with exterior stairs. This point is not clear in the current language.

There is this opinion that an open breezeway stairs are allowed by basic code. They are not. 2012 IBC Section 1026.6 states that exterior stairs must be separated from the interior of the building. The breezeway (interior "open ended" corridor) is part of the interior of the building. I have conferred with the original drafter of this code change many times and confirmed that the intent was to allow the removal of the wall and door that separates the stair from the corridor, creating a breezeway.

Many designers and jurisdictions assume that breezeway stairs are allowed by right. However, in order to not have to build the wall and fire door separating the exterior stair from the interior corridor, exception 4 must be complied with, which includes sprinklers in this breezeway.

The following is a representation of the intent of Exception 4, allowing the removal of the separation wall and door:

We are all familiar with the required protection on each side of the exterior stair as represented in the following clip from the 2000 International Building Code Commentary.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

Figure 1005.3.6.5(1)
PROTECTION OF EXTERIOR STAIRWAYS

So, if the walls on each side of the stair have to be protected, how can a large opening where the door occurs be removed and have an unprotected connection to the interior corridor.

The 2000 IBC Handbook, provided the following accurate depiction of what this code change applied to as follows:

OPEN-ENDED CORRIDOR

FIGURE 1005-10

Here is the original code change that inserted the provision. Notice the statement "The purpose of this analysis was to determine if an equivalent level of life safety could be achieved by the design of an open breezeway in comparison to an enclosed corridor or balcony for these multifamily buildings." The code change was not to eliminate the protection between the unit and the stair, but to remove the protection (wall and fire rated door) between the stair and what would have been an interior corridor.

technical change.

Public Hearing: Committee: AS AM D
Assembly: ASF DF

1008.7-2

Proponent: Ron Nickson, National Multi Housing Council/National Apartment Association

1. Revise as follows:

1008.7 Exterior exit stairways. Exterior exit stairways that conform to the requirements for interior exit stairways except for the enclosure requirements, are permitted as an element of a required means of egress for buildings not exceeding six stories or 75 feet (22.9 m) in height for occupancies other than Group I-2.

An exterior exit stairway that serves as an exit component shall be open to the outside on at least one side except for required structural columns beams, ~~and open-type~~ handrails and guards. A minimum of 35 square feet (3.22 m^2) of aggregate open area shall be provided within the horizontal projection of each floor to ceiling level at each exterior stair or within the horizontal projection of the floor to ceiling level of the stairway landing that is located no more than 1/2 level above the corridor floor.

The adjoining open areas shall be either yards, courts or public ways; the remaining sides are permitted to be enclosed by the exterior walls of the building. Any stairway not meeting the definition of an exterior stairway shall comply with the requirements for interior stairways.

Exterior stairways shall be located in accordance with Section 1009.1.

2. Revise the definition of Stairway, Exterior as follows:

SECTION 1002
DEFINITIONS

STAIRWAY, EXTERIOR A stairway that is open on at least one side, except for required structural columns, beams, ~~and open-type~~ handrails, and guards. The adjoining open areas shall be either yards, courts or public ways; the other sides of the exterior stairway need not be open.

Reason: To establish minimum requirements for open area on exterior exit stairways and permit the use of enclosed guards and handrail systems.

The 35 sq. ft. of open area is based on computer fire studies of six multifamily projects in Virginia containing more than 2000 individual dwelling units. The analysis was completed by the Sullivan Code Group using HAZARD I, a fire hazard assessment method developed by the United States National Institute of Standards and Technology. The procedures used by the Sullivan Code Group were reviewed by Professor Jonathan Barnett, Ph.D., Associate Professor, Center for Firesafety Studies, Worcester Polytechnic Institute who checked for conformity with the fire modeling expectations and limitations.

The findings, which are based on the provisions in the 1996 BOCA National Building Code, apply equally to the provisions in the IBC. The results, summarized by the Sullivan Code Group in the following Executive Summary, for the six buildings included in the studies were very similar. The buildings studied were multifamily apartments with various configurations of corridors connected to exterior open stairs.

EXECUTIVE SUMMARY

The purpose of this analysis was to determine if an equivalent level of life safety could be achieved by the design of an open breezeway in comparison to an enclosed corridor or a balcony for these multifamily buildings.

The multifamily buildings were analyzed using engineering judgement, referenced literature, the suite of computer programs called FASTlite, and CFAST and, computer-based fire models developed by the United States National Institute of Standards and Technology, Building and Fire Research Laboratory.

The reasonable worst case fire scenario modeled was an arson fire on the breezeway. By assuming that the design fire is a fast growing arson fire, this analysis goes beyond the requirements of the Building Code which does not consider arson fire situations in determining building fire safety regulations. Therefore, this analysis is evaluating the building under more adverse conditions than are addressed in the Building Code. The results of the analysis are:

1. For the life safety of the building occupants on the floor of fire origin, the open breezeway configuration is superior to the enclosed corridor configuration.
2. For the life safety of the building occupants on floors other than the floor of fire origin, the open breezeway configuration meets the intent of the egress provisions in the BOCA Code. With the open breezeway configuration, at least one stairwell should maintain tenable egress conditions depending on the wind direction. In all cases analyzed, one stairwell was capable of handling the occupant load. Therefore, the intent of the code is met.
3. Smoke conditions on floors other than the floor of fire origin will remain safe for a suitable period of time to allow occupant egress with the open breezeway configuration, even without sprinklers. If there is a wind, the tenability in the open breezeways is improved.
4. With the enclosed corridor configuration, sprinkler activation is predicted to occur after the time at which the upper smoke layer reaches a level that could impede egress. With the open breezeway configuration, sprinkler activation is predicted to occur prior to the time at which the upper smoke layer reaches a level that could impede egress.
5. The results of this analysis have demonstrated that an open breezeway protected by quick response automatic sprinklers provides occupant egress conditions which are better than code-complying balcony designs. Therefore an open breezeway protected by quick response sprinklers, as designed for this project, should be regulated by the same requirements as the open balcony which does not require a fire resistance rated floor when standard response automatic sprinklers are present. The design of the open breezeway provides a level of life safety equivalent or superior to that required by the BOCA Code Sections 106.2 and 106.4.

Copies of the Fire Studies are submitted for reference (see NMHC/NAA proposal for Section 1004.7). Additional copies are available from the proponent.

Public Hearing: Committee: AS AM D
Assembly: ASF DF

Last cycle, code change E134-09/10 made it clear that this exception only applied to the wall and door that would normally separate an exterior stair from the interior corridor. This exception does not apply to other separation requirements on the sides of the stairs.

The specific section reasoning for this code change is as follows:

Section 202, provide a definition of an open-corridor. The term open-ended *corridor* is already used in the provision. Hopefully this will expand on code change E134-09/10 to clarify that this provision is only to eliminate the separation required between the stair and the interior corridor. Not the units on either side.

Section 1026.6, expanding the same concept, adding clarity.

In the Group B cycle, the following code change is to be submitted:

Part III

IBC/IFC, Add new Section 903.3.1.2.2 to read as follows:

903.3.1.2.2 Open-ended Corridors. Sprinkler protection shall be provided in *open-ended corridors* serving *exterior stairways* and *ramps* as specified in Section 1026.6, exception 4.

Section 903.3.1.2.2 will now clarify that when a 13R system is used, extra heads must be installed in the open ended corridor in order to claim a breezeway stair. As with Section 903.3.1.2.1, this protection is above the requirements of a standard 13R system. If not checked in the design, these heads will not be installed. As such, the open-ended corridor will not be in compliance with code.

Also for discussion in the Group B cycle is the following possible change:

Part IV

IFC Section 1104.21, change to read as follows:

1104.21 Exterior stairway protection. Exterior *exit stairs* shall be separated from the interior of the building as required in Section 1026.6 . Openings shall be limited to those necessary for egress from normally occupied spaces.

Exceptions:

1. (unchanged)
2. (unchanged)
3. (unchanged)

4. Separation from the ~~interior~~ *open-ended corridor* of the building is not required for *exterior stairways* ~~connected to open-ended *corridors*~~, provided that:

~~4.1 The building, including *corridors*, and stairs, is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.~~

4.~~2~~ 1 The *open-ended corridors* comply with Section 1018.

4.~~3~~ 2 The *open-ended corridors* are connected on each end to an *exterior exit stairway* complying with Section 1026.

4.~~4~~ 3 At any location in an *open-ended corridor* where a change of direction exceeding 45 degrees (0.79 rad) occurs, a clear opening of not less than 35 square feet (3.3 m^2) or an *exterior stairway* or *ramp* shall be provided. Where clear openings are provided, they shall be located so as to minimize the accumulation of smoke or toxic gases.

In Texas, there a thousands of existing breezeway stair apartments. Although not addressed by the UBC it was felt that breezeway stairs were allowed by right. Many of these apartments are either:

1. not sprinklered; or
2. sprinklered with a 13R system and do not have extra heads in the breezeway.

As such, item 4.1 would retroactively require sprinklers in non-sprinklered apartments on office buildings with breezeways, or the installation of extra heads in 13R apartments. This constitutes a retroactive Group R and B sprinkler provision.

Cost Impact: This code proposal will not increase the cost of construction since no extra construction costs are involved.

E153-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1026.6-E-Godwin.doc

E154 – 12
1026.6 (IFC [B] 1026.6)

Proponent: Dennis Richardson, PE; Building Official, City of Salinas, representing Tri-Chapter (Peninsula, East Bay and Monterey Bay Chapters of ICC) (dennisrichardsonpe@yahoo.com)

Revise as follows:

1026.6 (IFC [B] 1026.6) Exterior stairway and ramp protection. *Exterior exit stairways* and *ramps* shall be separated from the interior of the building as required in Section 1022.2. Openings shall be limited to those necessary for egress from normally occupied spaces. Where a vertical projection of the planes of the guard of an exterior stairway or ramp including landings are exposed by other parts of the building at an angle of less than 180 degrees (3.14 rad), the exterior wall shall be rated in accordance with Section 1022.7.

Exceptions:

1. Separation from the interior of the building is not required for occupancies, other than those in Group R-1 or R-2, in buildings that are no more than two stories above grade plane where a level of exit discharge serving such occupancies is the first story above grade plane.
2. Separation from the interior of the building is not required where the exterior stairway or ramp is served by an exterior ramp or balcony that connects two remote exterior stairways or other approved exits, with a perimeter that is not less than 50 percent open. To be considered open, the opening shall be a minimum of 50 percent of the height of the enclosing wall, with the top of the openings no less than 7 feet (2134 mm) above the top of the balcony.
3. Separation from the interior of the building is not required for an exterior stairway or ramp located in a building or structure that is permitted to have unenclosed exit access stairways in accordance with Section 1009.3.
4. Separation from the interior of the building is not required for exterior stairways or ramps connected to open-ended corridors, provided that Items 4.1 through 4.5 are met:
   - 4.1 The building, including corridors, stairways or ramps, shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
   - 4.2 The open-ended corridors comply with Section 1018.
   - 4.3 The open-ended corridors are connected on each end to an exterior exit ramp or stairway complying with Section 1026.
   - 4.4 The exterior walls and openings adjacent to the exterior exit stairway or ramp comply with Section 1022.7.
   - 4.5 At any location in an open-ended corridor where a change of direction exceeding 45 degrees (0.79 rad) occurs, a clear opening of not less than 35 square feet (3.3 m^2) or an exterior stairway or ramps shall be provided. Where clear openings are provided, they shall be located so as to minimize the accumulation of smoke or toxic gases.

Reason: Current practice as explained in the past two IBC Code and Commentary editions is to require this protection consistent with the requirement in Section 1022.7 for protection of interior stairways and ramp exterior walls. Section 1022.7 is not referenced in 1026.6 or in 1022.2. The proposed language is similar to 1022.7 except that instead of measuring the angle between the building exterior walls and the unprotected walls at the exterior of the stairway or ramp, the proposed language measures between the building exterior walls and a vertical projection for the planes of the guard of the exterior stairway and ramp including landings. If the current practice as outlined in the IBC Code and Commentary is not correct then this code change should be disapproved and the Code and Commentary should be updated.

Cost Impact: This code change will not increase the cost of construction from current practice.

E154-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1026.6-E-Richardson.doc

E155 – 12
1027.1 (IFC [B] 1027.1)

Proponent: Robert J Davidson, Davidson Code Concepts LLC, representing SaftiFirst a Division of O'Keeffes, Inc. (rjd@davidsoncodeconcepts.com)

Revise as follows:

1027.1 (IFC [B] 1027.1) General. Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or shall provide direct access to grade. The exit discharge shall not reenter a building. The combined use of Exceptions 1 and 2 shall not exceed 50 percent of the number and capacity of the required exits.

1. A maximum of 50 percent of the number and capacity of interior exit stairways and ramps is permitted to egress through areas on the level of exit discharge provided all of the following are met:
   - 1.1. Such enclosures egress to a free and unobstructed path of travel to an exterior exit door and such exit is readily visible and identifiable from the point of termination of the enclosure.
   - 1.2. The entire area of the level of exit discharge is separated from areas below by construction conforming to the fire-resistance rating for the enclosure.
   - 1.3. The egress path from the interior exit stairway and ramp on the level of exit discharge is protected throughout by an approved automatic sprinkler system. All portions of the level of exit discharge with access to the egress path shall either be protected throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, or separated from the egress path in accordance with the requirements for the enclosure of interior exit stairways or ramps.
2. A maximum of 50 percent of the number and capacity of the interior exit stairways and ramps is permitted to egress through a vestibule provided all of the following are met:
   - 2.1. The entire area of the vestibule is separated from areas below by construction conforming to the fire-resistance rating for the enclosure.
   - 2.2. The depth from the exterior of the building is not greater than 10 feet (3048 mm) and the length is not greater than 30 feet (9144 mm).
   - 2.3. The area is separated from the remainder of the level of exit discharge by construction providing <u>45 minutes of fire-resistance rated</u> protection ~~at least~~ ~~the equivalent of approved wired glass in steel frames~~.
   - 2.4. The area is used only for means of egress and exits directly to the outside.
3. *Horizontal exits* complying with Section 1025 shall not be required to discharge directly to the exterior of the building.

Reason: The purpose of this proposal is to eliminate a left over reference to "wired glass" for purposes of fire protection. The last few cycles references to wired glass have been replaced with references to fire-rated glazing or other generic terms to eliminate a reference to a specific product.

The reference here is replaced with a requirement of 45 minutes of fire resistance because that is the level of fire-resistance rating historically associated with wired glass in steel frames and the code section is looking for that equivalent.

From NFPA 257-2007, "Standard on Fire Test for Window and Glass Block Assemblies":

> ***B.2.3*** *The current requirements for fire test duration are open, whereas previous editions limited the duration to 45 minutes. With the advent of new glazing materials that provide various levels of fire protection, the current requirements have responded to the needs of the industry and the fire protection community by establishing various fire protection ratings that are both longer and shorter than the previous 45-minute specification.* <u>*The 45-minute limit was based on the ability of standard wired glass to perform satisfactorily in accordance with earlier editions of NFPA 257.*</u>

Cost Impact: This code change will not increase construction costs.

E155-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1027.1-E-Davidson.doc

E156– 12
1027.6 (New) [IFC [B] 1027.6 (New)]

Proponent: Dennis Richardson, PE; Building Official, City of Salinas, representing self (dennisrichardsonpe@yahoo.com)

Add new text as follows:

1027.6 (IFC [B] 1027.6) Location of exit discharge. When a new building requires more than one exit, at least one of the required exits available to all occupants shall discharge into the public way or an egress court that is remotely located and not subject to exposure from a single fire in any building located on the adjacent lot.

Exceptions:

1. The existing building on the adjacent lot is sprinklered throughout with an automatic sprinkler system in accordance with Section 903.1.1.1 or 903.1.1.2.
2. The existing building on the adjacent lot has exterior walls constructed in accordance with Section 705.
3. The new building as proposed and the existing building on the adjacent lot conform with Section 705.3 if both buildings are assumed to be constructed on the same lot with an assumed imaginary line.

Reason: Current code would allow the construction of a new building having all of the required egress discharge exclusively into a single egress court that can be rendered useless and dangerous with a single fire in an unprotected building on an adjacent lot. When a new building is constructed there is a sufficient opportunity to plan for an egress system that will provide basic performance and life safety in this event. See example 1027.6. This proposal also provides exceptions to the proposed requirement if the existing building on the adjacent lot is sprinklered throughout , if the existing building on the adjacent lot has properly constructued exterior walls, or if the new building and the existing building would conform with 705.3 if they were assumed to be on the same lot and they are sufficiently separated so that they would conform with 705.3 with an imaginary line between them.

In summary: this code change proposes to make the protection relied on for egress courts between a new building and an existing nonconforming buildings on and adjacent lot comparable to the condition if they were both located on the same lot or the designer must locate one of the required exits so it is not affected by a single fire in a nonconforming building on an adjacent lot.

Cost Impact: This code change will not increase the cost of construction.

E156-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1027.6(New)-E-Richardson.doc

E157 – 12
1028.6.1, 1028.6.2 (IFC [B] 1028.6.1, 1028.6.2)

Proponent: Gene Boecker, AIA, Code Consultants, Inc, representing self

Revise as follows:

1028.6 (IFC [B] 1028.6) Width of means of egress for assembly. The clear width of aisles and other means of egress shall comply with Section 1028.6.1 where smoke-protected seating is not provided and with Section 1028.6.2 or 1028.6.3 where smoke-protected seating is provided. The clear width shall be measured to walls, edges of seating and tread edges except for permitted projections.

1028.6.1 (IFC [B] 1028.6.1) Without smoke protection. The clear width of the means of egress shall provide sufficient capacity in accordance with all of the following, as applicable:

1. At least 0.3 inch (7.6 mm) of width for each occupant served shall be provided on stairs having riser heights 7 inches (178 mm) or less and tread depths 11 inches (279 mm) or greater, measured horizontally between tread nosings.
2. At least 0.005 inch (0.127 mm) of additional stair width for each occupant shall be provided for each 0.10 inch (2.5 mm) of riser height above 7 inches (178 mm).
3. Where egress requires stair descent, at least 0.075 inch (1.9 mm) of additional width for each occupant shall be provided on those portions of stair width having no handrail within a horizontal distance of 30 inches (762 mm).
4. Ramped means of egress, where slopes are steeper than one unit vertical in 12 units horizontal (8-percent slope), shall have at least 0.22 inch (5.6 mm) of clear width for each occupant served. Level or ramped means of egress, where slopes are not steeper than one unit vertical in 12 units horizontal (8-percent slope), shall have at least 0.20 inch (5.1 mm) of clear width for each occupant served.
5. Means of egress outside the seating area shall provide capacity in accordance with Section 1005.

1028.6.2 (IFC [B] 1028.6.2) Smoke-protected seating. The clear width of the means of egress for smoke-protected assembly seating shall not be less than the occupant load served by the egress element multiplied by the appropriate factor in Table 1028.6.2. The total number of seats specified shall be those within the space exposed to the same smoke-protected environment. Interpolation is permitted between the specific values shown. A life safety evaluation, complying with NFPA 101, shall be done for a facility utilizing the reduced width requirements of Table 1028.6.2 for smoke-protected assembly seating. The clear width required for capacity shall be permitted to determine the required clear width for means of egress outside the seating area where smoke protection is maintained along the means of egress route. Where the exits serve occupants egressing from both smoke protected and non-smoke protected areas, the inches of clear width for each occupant in accordance with Table 1028.6.2 and Section 1005 shall be permitted to be calculated proportionally to the occupant loads served.

> **Exception:** For an outdoor *smoke-protected assembly seating* with an *occupant load* not greater than 18,000, the clear width shall be determined using the factors in Section 1028.6.3.

Reason: The provisions in the code as written are confusing. It is not clear how egress for smoke protected assembly seating is supposed to be addressed once the egress is outside the seating area. This proposal is consistent with the methodology used for the design of smoke protected assembly seating venues since prior to the ICC. The text in the legacy codes had separate provisions for means of egress within and outside of the seating areas that clearly allowed them to be treated in this manner. When the code texts were combined into the IBC, this aspect was lost due to the way the code language was worded.

This issue has been interpreted in the manner noted above to suggest that once outside the seating area, the factors should revert to those noted in Section 1005. For large venues like arenas, an alternative interpretation could effectively create a ring of exits from the areas outside the seating area. This is not how these facilities have been constructed over the years. IN addition, this proposal addresses the method of calculation for the capacity of exits that serve both smoke protected assembly seating and non-smoke protected areas. Approval of this code change will not alter the way in which the code has been applied but simply clarify the way it has been done.

Cost Impact: The code change proposal will not increase the cost of construction although the improper interpretation of these provisions certainly would.

E157-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1028.6.1-E-Boecker.doc

E158 – 12
1028.6.2 (IFC [B] 1028.6.2)

Proponent: Daniel E. Nichols, P.E., New York State Division of Code Enforcement and Administration, Albany, NY (dan.nichols@dos.state.ny.us)

Revise as follows:

1028.6.2 (IFC [B] 1028.6.2) Smoke-protected seating. The clear width of the means of egress for smoke-protected assembly seating shall not be less than the occupant load served by the egress element multiplied by the appropriate factor in Table 1028.6.2. The total number of seats specified shall be those within the space exposed to the same smoke-protected environment. Interpolation is permitted between the specific values shown. ~~A life safety evaluation, complying with NFPA 101, shall be done~~ Facilities utilizing the reduced width requirements of Table 1028.6.2 for smoke protected assembly seating shall also comply with the requirements of Sections 404.2 and 408.2 of the *International Fire Code*.

> **Exception:** For an outdoor *smoke-protected assembly seating* with an *occupant load* not greater than 18,000, the clear width shall be determined using the factors in Section 1028.6.3.

Reason: The purpose of this code change proposal is to remove the requirements of the 'life safety evaluation' in favor of the fire and life safety preparedness requirements found in the International Fire Code.

The life safety evaluation is utilized only when smoke-protected seating is desired to be used by the regulated party; mainly to utilize the occupant calculations published in Section 1028 regarding aisle and stair widths rather than the prescriptive aisle and stair width requirements. Upon review of the life safety evaluation, the contents within NFPA 101 Section 12.4.1, the requirements call for an assessment of the assembly space regarding different types of emergencies, but do not provide any direction on what the minimum requirements are nor does it make any reference to other Sections of NFPA 101 to provide guidance to the code user. It should be noted that the requirements of the life safety evaluation also require the document to be updated annually (12.4.1.1 (3)), which is outside the scope of the IBC.

This proposal replaces the life safety evaluation with documentation that is already required by the International Fire Code; specifically the fire safety and evacuation plan and the specific assembly occupancy provisions. This provides the following benefits:

1. Many of the items that are required in the life safety evaluation are covered in the fire safety and evacuation plan required by 404 of the IFC.
2. IFC Sections 401.2 and 401.4 give authority for the fire code official to enforce compliance with and approve the fire safety and evacuation plan; whereas ongoing compliance and enforcement of the required update of the life safety evaluation is not required by the IFC.
3. IFC Section 404 gives the code user specific details on what should be considered in an evacuation plan which, in turn, gives the code user guidance on what the output of such plan should be.
4. IFC Section 408.2 sets specific criteria on the limitations of a seating plan and occupancy limits; and is directly enforceable by IFC Section 401.2 and 401.4.

Cost Impact: By not requiring redundant documentation, this code change will lessen the operational and maintenance costs of certain assembly occupancies.

E158-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1028.6.2-E-Nichols.doc

E159 – 12

1028.9.5, 1028.9.7(New), 1028.9.8(New), 1028.10-1028.10.3(New); [IFC [B] 1028.9.5, 1028.9.7(New), 1028.9.8(New), 1028.10-1028.10.3(New)]

Proponent: Ed Roether, Ed Roether Consulting, representing self (ed@edroetherconsulting.com)

Revise as follows:

1028.9.5 (IFC [B] 1028.9.5) Assembly aisle termination. Each end of an *aisle* shall terminate at cross *aisle*, foyer, doorway, vomitory, ~~or~~ concourse or stairway in accordance with Section 1029.9.7 having access to an *exit*.

Exceptions:

1. Dead-end *aisles* shall not be greater than 20 feet (6096 mm) in length.
2. Dead-end *aisles* longer than 20 feet (6096 mm) are permitted where seats beyond the 20-foot (6096 mm) dead-end *aisle* are no more than 24 seats from another *aisle*, measured along a row of seats having a minimum clear width of 12 inches (305 mm) plus 0.6 inch (15.2 mm) for each additional seat above seven in the row.
3. For *smoke-protected assembly seating*, the dead-end *aisle* length of vertical *aisles* shall not exceed a distance of 21 rows.
4. For *smoke-protected assembly seating*, a longer dead-end *aisle* is permitted where seats beyond the 21-row dead-end *aisle* are not more than 40 seats from another *aisle*, measured along a row of seats having an *aisle* accessway with a minimum clear width of 12 inches (305 mm) plus 0.3 inch (7.6 mm) for each additional seat above seven in the row.

1028.9.6 (IFC [B] 1028.9.6) Assembly aisle obstructions. There shall be no obstructions in the required width of aisles except for handrails as provided in Section 1028.13.

1028.9.7 (IFC [B] 1028.9.7) Stairways connecting to aisle stairs. A stairway that connects an aisle stair to a cross aisle or concourse shall be permitted to comply with the assembly aisle walking surface requirements of Section 1028.11. Transitions between stairways and aisle stairs shall comply with Section 1028.10.

1028.9.8 (IFC [B] 1028.9.8) Stairways connecting to vomitories. A stairway that connects a vomitory to a cross aisle or concourse shall be permitted to comply with the assembly aisle walking surface requirements of Section 1028.11. Transitions between stairways and aisle stairs shall comply with Section 1028.10.

1028.10 (IFC [B] 1028.10) Transitions. Transitions between stairways and aisle stairs shall comply with either Section 1028.10.1 or 1028.2.

1028.10.1 (IFC [B] 1028.10.1) Transitions and stairways that maintain aisle stair riser and tread dimensions. Aisle stairs, transitions and stairways that maintain riser and tread dimensions shall comply with Section 1028.11 as one exit access component.

1028.10.2 (IFC [B] 1028.10.2) Transitions to stairways that do not maintain aisle stair riser and tread dimensions. Transitions between aisle stairs with riser and tread dimensions that differ from the stairways shall comply with this section

1028.10.2.1 (IFC [B] 1028.10.2.1) Stairways and aisle stairs in a straight run. Transitions where the stairway is a straight run from the aisle stair shall have a minimum depth of 22 inches (559 mm) where the treads on the descending side of the transition have greater depth and 30 inches (762 mm) where the treads on the descending side of the transition have lesser depth.

1028.10.2 (IFC [B] 1028.10.2) Stairways and aisle stairs that change direction. Transitions where the stairway changes direction from the aisle stair shall have a minimum depth of 11 inches (280 mm) or the aisle stair tread depth, whichever is greater, between the aisle stair and stairway.

1028.10.3 (IFC [B] 1028.10.3) Transition marking. A distinctive marking stripe shall be provided at each nosing or leading edge adjacent to the transition. Such stripe shall be a minimum of 1 inch (25 mm), and a maximum of 2 inches (51 mm), wide. The edge marking stripe shall be distinctively different from the aisle stair contrasting marking stripe.

(Renumber remaining sections)

Reason: Stepped elements that connect aisles having direct connection to aisle accessways and other exit access components is dictated by lines of sight requirements similar to the aisles. These stepped elements are commonly considered aisles rather than stairways given the current definition of an aisle. However, there is confusion regarding these stepped elements and there are many types of conditions that are found for these elements within assembly seating. This proposal is intended to address these stepped elements and provide criteria specifically for them and eliminate the confusion related to them. Line of sight requirements prevent these stairways from complying with the stairway criteria including landing provisions. Traversing an aisle requires more attention than traversing an exit stairway and the minimum depths for the transitions of this proposal coordinate with the line of sight limitations and cadence of traversing an aisle. It also draws attention to the transition similar to aisle locations where a change in riser height occurs.

Cost Impact: Minimal

E159-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1028.9.5-E-Roether.doc

E160-12

1028.9.5, 1028.10.2.1, Table 1028.10.2.1, 1028.10.2.2; (IFC [B] 1028.9.5, 1028.10.2.1, Table 1028.10.2.1, 1028.10.2.2)

Proponent: Dan Casella, Chair, ICC 300 Development Committee, Standard for Bleachers, Folding and Telescopic Seating and Grandstands

Revise as follows:

1028.9.5 (IFC [B] 1028.9.5) Assembly aisle termination. Each end of an *aisle* shall terminate at cross *aisle*, foyer, doorway, vomitory or concourse having access to an *exit*.

Exceptions:

1. Dead-end *aisles* shall not be greater than 20 feet (6096 mm) in length.
2. Dead-end *aisles* longer than 16 rows ~~20 feet (6096 mm)~~ are permitted where seats beyond the 16th row ~~20-foot (6096 mm)~~ dead-end *aisle* are no more than 24 seats from another *aisle*, measured along a row of seats having a minimum clear width of 12 inches (305 mm) plus 0.6 inch (15.2 mm) for each additional seat above seven in the row where seats have backrests or beyond ten where seats are without backrests in the row.
3. For *smoke-protected assembly seating*, the dead end *aisle* length of vertical *aisles* shall not exceed a distance of 21 rows.
4. For *smoke-protected assembly seatin*g, a longer dead-end *aisle* is permitted where seats beyond the 21-row dead-end *aisle* are not more than 40 seats from another *aisle*, measured along a row of seats having an *aisle* accessway with a minimum clear width of 12 inches (305 mm) plus 0.3 inch (7.6 mm) for each additional seat above seven in the row where seats have backrests or beyond ten where seats are without backrests in the row.

1028.10.2.1 (IFC [B] 1028.10.2.1) Dual access. For rows of seating served by *aisles* or doorways at both ends, there shall not be more than 100 seats per row. The minimum clear width of 12 inches (305 mm) between rows shall be increased by 0.3 inch (7.6 mm) for every additional seat beyond 14 seats where seats have backrests or beyond 21 where seats are without backrests. ~~, but~~ The minimum clear width is not required to exceed 22 inches (559 mm).

Exception: For s*moke-protected assembly seating*, the row length limits for a 12-inch-wide (305 mm) *aisle accessway*, beyond which the *aisle accessway* minimum clear width shall be increased, are in Table 1028.10.2.1.

TABLE 1028.10.2.1 (IFC [B] TABLE 1028.10.2.1)
SMOKE-PROTECTED ASSEMBLY AISLE ACCESSWAYS

TOTAL NUMBER OF SEATS IN THE SMOKE PROTECTED ASSEMBLY OCCUPANCY	MAXIMUM NUMBER OF SEATS PER ROW PERMITTED TO HAVE A MINIMUM 12-INCH CLEAR WIDTH AISLE ACCESSWAY			
	Aisle or doorway at both ends of row		Aisle or doorway at one end of row only	
	Seats with backrests	Seats without backrests	Seats with backrests	Seats without backrests
Less than 4,000	14	21	7	10
4,000	15	22	7	10
7,000	16	23	8	11
10,000	17	24	8	11
13,000	18	25	9	12
16,000	19	26	9	12

TOTAL NUMBER OF SEATS IN THE SMOKE PROTECTED ASSEMBLY OCCUPANCY	MAXIMUM NUMBER OF SEATS PER ROW PERMITTED TO HAVE A MINIMUM 12-INCH CLEAR WIDTH AISLE ACCESSWAY			
	Aisle or doorway at both ends of row		Aisle or doorway at one end of row only	
	Seats with backrests	Seats without backrests	Seats with backrests	Seats without backrests
19,000	20	27	10	13
22,000 and greater	21	28	11	14

For SI: 1 inch = 25.4 mm.

1028.10.2.2 (IFC [B] 1028.10.2.2) Single access. For rows of seating served by an *aisle* or doorway at only one end of the row, the minimum clear width of 12 inches (305 mm) between rows shall be increased by 0.6 inch (15.2 mm) for every additional seat beyond seven seats where seats have backrests or beyond ten where seats are without backrests. ~~, but~~ the minimum clear width is not required to exceed 22 inches (559 mm).

> **Exception:** For *smoke-protected assembly seating*, the row length limits for a 12-inch-wide (305 mm) *aisle accessway*, beyond which the *aisle accessway* minimum clear width shall be increased, are in Table 1028.10.2.1.

Reason: The intent of this proposal is for coordination with ICC 300 Section 407.3, 407.4 and 407.5.

This proposal is an extension of the recognition of the fact that bench seating without backrests allows easier and quicker lateral movement along a bleacher type row as compared with rows of seating which are provided with backrests. In seating with backrests, occupants typically must remain facing forward or approximately perpendicular to the aisle access and side step toward the aisle. The wider the aisle access, the more the occupants are allowed to turn and walk toward the aisle. When backrests are not present it is possible to turn and face parallel to the aisle access regardless of aisle access width. This in turn allows a walking style motion instead of side stepping.

Seating without backrests also allows easier vertical movements between rows without climbing over seatbacks or using aisles. Although this is not a consideration during normal egress, the benefits to crowd management, security, and emergency medical personnel are obvious.

Current IBC aisle access requirements are based on seating with backrests. For the minimum 12” aisle access, 6 seats are allowed between any seat and an aisle. From there that number of seats is increased with increases in aisle access width and smoke protection. This proposal increases the basic number of seats between any seat and an aisle for the minimum 12” aisle access from 6 to 9(single access) or 10(dual access). The increase factors for width and smoke protection remain unchanged.

Once the increased number is exceeded in a dual access or single access row, the calculation for the increased access aisle width would start at this point. Example of dual access:

Seats with backs – 30 seats; 30 – 14 = 16; 16 x 0.3” + 12” = 16.8” minimum access aisle width
Seats without backs – 30 seats; 30 – 21 = 7; 7 x 0.3” + 12” = 14.1” minimum access aisle width

This proposal also re-introduces the long standing and time tested dead end aisle limit of 16 rows for non-smoke protected seating. The 16 row limit is reasonable considering the attentiveness of people and typically shorter periods of occupancy involved with assembly. It also matches well with the 21 row limit already afforded to smoke protected seating.

The purpose of the ICC 300 standard is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, and safety to life and property relative to the construction, alteration, repair, operation, and maintenance of new and existing temporary and permanent bench bleachers, folding and telescopic seating, and grandstands. Information can be downloaded from the following website: http://www.iccsafe.org/cs/standards/IS-BLE/Pages/default.aspx. Since its inception in March 2000, the committee has produced 3 editions, the latest edition being 2012. All meeting are open to the public.

Cost Impact: None

E160-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1028.9.5-E-CASELLA-ICC 300.doc

E161 – 12
1028.11.2.1(New) [IFC [B] 1028.11.2.1(New)]

Proponent: Ed Roether, Ed Roether Consulting, representing self (ed@edroetherconsulting.com)

Add new test as follows:

1028.11.2 (IFC [B] 1028.11.2) Risers. Where the gradient of aisle stairs is to be the same as the gradient of adjoining seating areas, the riser height shall not be less than 4 inches (102 mm) nor more than 8 inches (203 mm) and shall be uniform within each flight.

Exceptions:

1. Riser height nonuniformity shall be limited to the extent necessitated by changes in the gradient of the adjoining seating area to maintain adequate sightlines. Where nonuniformities exceed 3/16 inch (4.8 mm) between adjacent risers, the exact location of such nonuniformities shall be indicated with a distinctive marking stripe on each tread at the nosing or leading edge adjacent to the nonuniform risers. Such stripe shall be a minimum of 1 inch (25 mm), and a maximum of 2 inches (51 mm), wide. The edge marking stripe shall be distinctively different from the contrasting marking stripe.
2. Riser heights not exceeding 9 inches (229 mm) shall be permitted where they are necessitated by the slope of the adjacent seating areas to maintain sightlines.

1028.11.2.1 (IFC [B] 1028.11.2.1) Construction Tolerances. The tolerance between adjacent risers on an aisle stair that were designed to be equal height shall not exceed 3/16 inch (4.8 mm). Where the aisle stair is designed in accordance with Exception 1 of Section 1028.11.2, the aisle stair shall be constructed so that each riser of unequal height, determined in the direction of descent, is not more than 3/8 inch (10 mm) in height different from adjacent risers where aisle stair treads are less than 22 inches (560 mm) in depth and 3/4 inch (19 mm) in height different from adjacent risers where aisle stair treads are 22 inches (560 mm) or greater in depth.

Reason: Construction tolerances are addressed elsewhere in the building code and the provisions of exception #1 should not support the lack of construction diligence on aisle construction. Without construction tolerance limits, each aisle riser could vary in height due to construction and stripe in accordance to exception #1 which nullifies the purpose of the striping to identify hazardous locations. Also, currently there is no maximum limit where riser heights vary and there should be. The limits of this proposal have been coordinated with the tolerances specified for cast-in-place concrete construction (ACI) and precast concrete construction (PCI).

Cost Impact: None

E161-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1028.11.2.1-E-Roether.doc

E162 – 12

1009.8, 1009.10, 1010.5, 1010.7, 1028.11.4 (New) [IFC [B] 1009.8, 1009.10, 1010.5, 1010.7, 1028.11.4 (New)]

Proponent: Ed Roether, Ed Roether Consulting, representing self (ed@edroetherconsulting.com)

Revise as follows:

1028.11.4 (IFC [B] 1028.11.4) Landings. Landings for a ramped aisle that serve as part of an accessible route shall be constructed in accordance with Section 1010.7. Landings are not required at ramped aisles that are not part of an accessible route. Landings are not required at aisle stairs.

1009.8 (IFC [B] 1009.8) Stairway landings. There shall be a floor or landing at the top and bottom of each stairway. The width of landings shall not be less than the width of stairways they serve. Every landing shall have a minimum width measured perpendicular to in the direction of travel equal to the width of the stairway. Where the stairway has a straight run the depth need not exceed 48 inches (1219 mm). Doors opening onto a landing shall not reduce the landing to less than one-half the required width. When fully open, the door shall not project more than 7 inches (178 mm) into a landing. When wheelchair spaces are required on the stairway landing in accordance with Section 1007.6.1, the wheelchair space shall not be located in the required width of the landing and doors shall not swing over the wheelchair spaces.

Exception: Landings are not required at aisle stairs complying with Section 1028.

1009.10 (IFC [B] 1009.8) Vertical rise. A flight of stairs shall not have a vertical rise greater than 12 feet (3658 mm) between floor levels or landings.

Exceptions:

1. Landings are not required at aisle stairs complying with Section 1028.
2. Alternating tread devices used as a means of egress shall not have a rise greater than 20 feet (6096 mm) between floor levels or landings.
3. Spiral stairways used as a means of egress from technical production areas.

1010.5 (IFC [B] 1010.5) Vertical rise. The rise for any ramp run shall be 30 inches (762 mm) maximum.

Exception: Ramped aisles that are not part of an accessible route and complying with Section 1028.

1010.7 (IFC [B] 1010.7) Landings. Ramps shall have landings at the bottom and top of each ramp, points of turning, entrance, exits and at doors. Landings shall comply with Sections 1010.7.1 through 1010.7.5.

Exception: Landings are not required at ramped aisles that are not part of an accessible route and complying with Section 1028.

Reason: Landing requirements for stairways and ramps conflict with the line of sight requirements of assembly seating, thereby aisle stairs and aisle ramps. This proposal clarifies that line of sight requirements integral with aisles and all of the provisions relating to aisles need to be covered in Section 1028. This proposal is intended to coordinate with another proposed change by the proponent addressing aisle transitions.

Cost Impact: Minimal

E162-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1028.11.4-E-Roether.doc

E163 – 12
1028.13 (IFC [B] 1028.13)

Proponent: Ed Roether, Ed Roether Consulting, representing self (ed@edroetherconsulting.com)

Revise as follows:

1028.13 (IFC [B] 1028.13) Handrails. Ramped *aisles* having a slope exceeding one unit vertical in 15 units horizontal (6.7-percent slope) and *aisle stairs* shall be provided with *handrails* located either at the side or within the *aisle* width.

Exceptions:

1. *Handrails* are not required for ramped *aisles* having a gradient no greater than one unit vertical in eight units horizontal (12.5-percent slope) and seating on both sides.
2. *Handrails* are not required if, at the side of the *aisle*, there is a *guard* that complies with the graspability requirements of *handrails*.
3. *Handrail* extensions are not required for ~~at the top and bottom of~~ *aisle stairs* ~~and~~ or *aisle ramps* ~~runs~~ to *permit* crossovers within the *aisles*. Handrail extensions are required at the top of an aisle terminating at a concourse.

Reason: Sometimes the top or bottom of an aisle is still within the aisle and other times it is at the end of an aisle. An aisle terminating at a concourse would always be at the end of an aisle, therefore crossover is not critical. Aisles terminating at a cross-aisle may or may not be at the end of an aisle, but there would be cross traffic along the cross-aisle. Aisles need to permit crossover at a foyer, doorway or vomitory. This proposal addresses only those locations where a crossover within the aisle is not a critical factor.

Cost Impact: Minimal

E163-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1028.13-E-Roether.doc

E164-12

1012.4, 1028.9.1, 1028.13.1, 1028.13.2; (IFC [B] 1012.4, 1028.9.1, 1028.13.1, 1028.13.2)

Proponent: Dan Casella, Chair, ICC 300 Development Committee, Standard for Bleachers, Folding and Telescopic Seating and Grandstands

Revise as follows:

1028.13 Handrails. Ramped *aisles* having a slope exceeding one unit vertical in 15 units horizontal (6.7-percent slope) and *aisle stairs* shall be provided with *handrails* located either at the side or within the *aisle* width.

Exceptions:

1. *Handrails* are not required for ramped *aisles* having a gradient no greater than one unit vertical in eight units horizontal (12.5-percent slope) and seating on both sides.
2. *Handrails* are not required if, at the side of the *aisle*, there is a *guard* that complies with the graspability requirements of *handrails*.
3. *Handrail* extensions are not required at the top and bottom of *aisle stairs* and *aisle ramps* to *permit* crossovers within the *aisles*.

1028.13.1 (IFC [B] 1028.13.1) Discontinuous handrails. Where there is seating on both sides of the aisle, the mid-aisle handrails shall be discontinuous with gaps or breaks at intervals not exceeding five rows to facilitate access to seating and to permit crossing from one side of the aisle to the other. These gaps or breaks shall have a clear width of at least 22 inches (559 mm) and not greater than 36 inches (914 mm), measured horizontally, and the mid-aisle handrail shall have rounded terminations or bends.

1028.13.2 (IFC [B] 1028.13.2) Handrail termination. Handrails located on the side of aisle stairs shall return to a wall, guard or the walking surfaces or shall be continuous to the handrail of an adjacent aisle stair flight.

1028.13.3 (IFC [B] 1028.13.3) Mid-aisle termination. Mid-aisle handrails shall not extend beyond the lowest riser and shall terminate within 18 inches (381 mm), measured horizontally, from the lowest riser. Handrail extensions are not required.
Exception: Mid-aisle handrails shall be permitted to extend beyond the lowest riser where the handrail extensions do not obstruct the width of the cross aisle.

~~1028.13.2~~ 1028.13.4 (IFC [B] ~~1028.13.2~~ 1028.13.4) Intermediate ~~hand~~rails. Where mid-aisle *handrails* are provided in ~~the middle of~~ *aisle stairs*, there shall be an additional intermediate rail ~~*handrail*~~ located approximately 12 inches (305 mm) below the ~~main~~ *handrail*.

1012.4 (IFC [B] 1012.4) Continuity. *Handrail* gripping surfaces shall be continuous, without interruption by newel posts or other obstructions.

Exceptions:

1. *Handrails* within *dwelling units* are permitted to be interrupted by a newel post at a turn or landing.
2. Within a *dwelling unit*, the use of a volute, turnout, starting easing or starting newel is allowed over the lowest tread.
3. Handrail brackets or balusters attached to the bottom surface of the *handrail* that do not project horizontally beyond the sides of the *handrail* within 11/2 inches (38 mm) of the bottom of the *handrail* shall not be considered obstructions. For each 1/2 inch (12.7 mm) of additional

handrail perimeter dimension above 4 inches (102 mm), the vertical clearance dimension of 11/2 inches (38 mm) shall be permitted to be reduced by 1/8 inch (3 mm).

4. Where *handrails* are provided along walking surfaces with slopes not steeper than 1:20, the bottoms of the handrail gripping surfaces shall be permitted to be obstructed along their entire length where they are integral to crash rails or bumper guards.
5. Mid-aisle handrails in rooms or spaces used for assembly purposes in accordance with Section 1028.13.

1028.9.1 (IFC [B] 1028.9.1) Minimum aisle width. The minimum clear width for *aisles* shall be as shown:

1. Forty-eight inches (1219 mm) for *aisle stairs* having seating on each side.

   Exception: Thirty-six inches (914 mm) where the *aisle* serves less than 50 seats.

2. Thirty-six inches (914 mm) for *aisle stairs* having seating on only one side.

   Exception: Twenty-three inches (584 mm) between an *aisle stair handrail* and seating where an *aisle* does not serve more than five rows on one side.

3. Twenty-three inches (584 mm) between an *aisle stair handrail* or *guard* and seating where the aisle is subdivided by a mid-aisle *handrail*.
4. Forty-two inches (1067 mm) for level or ramped *aisles* having seating on both sides.

   Exceptions:

   1. Thirty-six inches (914 mm) where the *aisle* serves less than 50 seats.
   2. Thirty inches (762 mm) where the *aisle* does not serve more than 14 seats.

. 5. Thirty-six inches (914 mm) for level or ramped *aisles* having seating on only one side.

   Exception: Thirty inches (762 mm) where the *aisle* does not serve more than 14 seats.

Reason: There are three intents for this proposal. The breaks in mid-aisle handrails are a continuity issue, and there was not an exception for this in Section 1014.4. New Section 1028.13.1.2 will clarify how far that handrail can stop from the bottom of a aisle stair and still allow for a person to get past the front of the rail to enter the first row of seating. This is coordinated with revisions to ICC 300, Section 409.5.1. The rail below the handrail is to stop people from going under the handrail or swinging on the rail. It is not intended to meet all the handrail provisions for graspability. This is coordinated with ICC 300, Section 409.1.1.

Changes throughout are for consistency in using the term, mid-aisle handrail.

The purpose of the ICC 300 standard is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, and safety to life and property relative to the construction, alteration, repair, operation, and maintenance of new and existing temporary and permanent bench bleachers, folding and telescopic seating, and grandstands. Information can be downloaded from the following website: http://www.iccsafe.org/cs/standards/IS-BLE/Pages/default.aspx. Since its inception in March 2000, the committee has produced 3 editions, the latest edition being 2012. All meeting are open to the public.

Cost Impact: None

E164-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1012.4-E-CASELLA

E165-12

1009.16(New), 1010.11, 1013.2, 1013.3, 1028.14, 1028.14.1, 1028.14.2, 1028.14.3; (IFC [B] 1009.16(New), 1010.11, 1013.2, 1013.3, 1028.14, 1028.14.1, 1028.14.2, 1028.14.3)

Proponent: Dan Casella, Chair, ICC 300 Development Committee, Standard for Bleachers, Folding and Telescopic Seating and Grandstands

Revise as follows:

1028.14 (IFC [B] 1028.14) Assembly guards. Guards adjacent to seating in a building, room or space used for assembly purposes shall be provided where required by Section 1013 and shall be constructed in accordance with Section 1013 except where provided in accordance with ~~comply~~ Sections 1028.14.1 through 1028.14.~~3~~4. At bleachers, grandstands and folding and telescopic seating, guards must be provided where required by ICC 300 and Section 1028.14.1.

1028.14.1 (IFC [B] 1028.14.1) Perimeter guards. Perimeter guards shall be provided where the footboards or walking surface of seating facilities are more than 30 inches (762 mm) above the floor or grade below. Where the seatboards are adjacent to the perimeter, guard height shall be 42 inches (1067 mm) high minimum, measured from the seatboard. Where the seats are self-rising, guard height shall be 42 inches (1067 mm) high minimum, measured from the floor surface. Where there is an aisle between the seating and the perimeter, the guard height shall be measured in accordance with Section 1013.2.

Exceptions:

1. Guards that impact line-of-sight shall be permitted to comply with Section 1028.14.3.
2. Bleachers, grandstands and folding and telescopic seating shall not be required to have perimeter guards where the seating is located adjacent to a wall and the space between the wall the seating is less than 4 inches (102 mm).

~~**1028.14.1**~~ **1028.14.2 (IFC [B] ~~1028.14.1~~ 1028.14.2) Cross aisles.** Cross aisles located more than 30 inches (762 mm) above the floor or grade below shall have guards in accordance with Section 1013.

Where an elevation change of 30 inches (762 mm) or less occurs between a cross aisle and the adjacent floor or grade below, guards not less than 26 inches (660 mm) above the aisle floor shall be provided.

Exception: Where the backs of seats on the front of the cross aisle project 24 inches (610 mm) or more above the adjacent floor of the aisle, a guard need not be provided.

~~**1028.14.2**~~ **1028.14.3 (IFC [B] ~~1028.14.2~~ 1028.14.3) Sightline-constrained guard heights.** Unless subject to the requirements of Section ~~1028.14.3~~ 1028.14.4, a fascia or railing system in accordance with the guard requirements of Section 1013 and having a minimum height of 26 inches (660 mm) shall be provided where the floor or footboard elevation is more than 30 inches (762 mm) above the floor or grade below and the fascia or railing would otherwise interfere with the sightlines of immediately adjacent seating. ~~At bleachers, a guard must be provided where required by ICC 300.~~

~~**Exception:** The height of the guard in front of seating shall be measured from the adjacent walking surface.~~

~~**1028.14.3**~~ **1028.14.4 (IFC [B] ~~1028.14.3~~ 1028.14.4) Guards at the end of aisles.** A fascia or railing system complying with the guard requirements of Section 1013 shall be provided for the full width of the aisle where the foot of the aisle is more than 30 inches (762 mm) above the floor or grade below. The fascia or railing shall be a minimum of 36 inches (914 mm) high and shall provide a minimum 42 inches (1067 mm) measured diagonally between the top of the rail and the nosing of the nearest tread.

1009.16 (IFC [B] 1009.16) Guards. Guards shall be provided where required by Section 1013 and shall be constructed in accordance with Section 1013.

1010.10 ~~1010.11~~ (IFC [B] 1010.10 ~~1010.11~~) Guards. Guards shall be provided where required by Section 1013 and shall be constructed in accordance with Section 1013.

1013.2 (IFC [B] 1013.2) Where required. *Guards* shall be located along open-sided walking surfaces, including *mezzanines*, *equipment platforms*, aisles, *stairs*, *ramps* and landings that are located more than 30 inches (762 mm) measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side. *Guards* shall be adequate in strength and attachment in accordance with Section 1607.8.

Exception: *Guards* are not required for the following locations:

1. On the loading side of loading docks or piers.
2. On the audience side of *stages* and raised *platforms*, including ~~steps~~ stairways leading up to the *stage* and raised *platforms*.
3. On raised *stage* and *platform* floor areas, such as runways, *ramps* and side *stages* used for entertainment or presentations.
4. At vertical openings in the performance area of stages and *platforms*.
5. At elevated walking surfaces appurtenant to *stages* and *platforms* for access to and utilization of special lighting or equipment.
6. Along vehicle service pits not accessible to the public.
7. In assembly seating where *guards* in accordance with Section 1028.14 are permitted and provided.

1013.3 (IFC [B] 1013.3) Height. Required guards shall not be less than 42 inches (1067 mm) high, measured vertically as follows:

1. From the adjacent walking surfaces,
2. On ~~stairs~~ stairways and aisle stairs, from the line connecting the leading edges of the tread nosings, and
3. On ramps and ramped aisles, from the ramp surface at the guard.

Exceptions:

1. For occupancies in Group R-3 not more than three stories above grade in height and within individual dwelling units in occupancies in Group R-2 not more than three stories above grade in height with separate means of egress, required guards shall not be less than 36 inches (914 mm) in height measured vertically above the adjacent walking surfaces or fixed seating.
2. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
3. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, where the top of the guard also serves as a handrail on the open sides of stairs, the top of the guard shall not be less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.
4. The guard height in assembly seating areas shall comply with Section 1028.14 as applicable.
5. Along alternating tread devices and ship ladders, guards whose top rail also serves as a handrail, shall have height not less than 30 inches (762 mm) and not more than 34 inches (864 mm), measured vertically from the leading edge of the device tread nosing.

Reason: The intent is to deal with guards consistently for stairways, ramps and aisles (level, stepped and ramped). The situations unique to assembly seating will be addressed in 1028: at the outside perimeter; at cross aisles; where sightline-constraints are present; and at the end of the aisle. Guards at other locations will be address by the general provisions in Section 1013.

The 2012 ICC 300 does not include provisions for perimeter guards. It is the intent of the ICC 300 bleacher committee to propose the perimeter guard requirement into the bleacher standard during the next update cycle.

- 1009.16 – Add language to require guards at sides of stairways the same as at ramps.
- 1010.10 – Relocate guard requirement at ramps to immediately follow handrails. The handrails and guards should work as a unit.
- 1013.2 – Add aisles to the general requirements so that raised aisles that are not specifically addressed in Section 1028.14 are also be required to have guards.
- 1013.3 – Add aisle descriptors so that the guard height is 42" for aisles unless specifically addressed in Section 1028.14. An example would be side aisles.
- 1028.14 –The reference back to Section 1013 for guard construction is consistent with stairways and ramps. This will address situation other than that covered by subsections. The allowance to use ICC 300 is a general reference for similar guard situation, so it was relocated from 1028.14.2.
- 1028.14.1 (new) – There is a question regarding where guards are required around the perimeter of assembly seating since the walking surface for the last row of seating is not immediately adjacent to a drop off. This question exists for ICC 300 and other assembly seating arrangements. ICC 300 requires guards with 4" openings where the floor surface has an adjacent 30" drop off (ICC 300 Section 408). The dropoff is measure from the floor rather than the seatboard because the ICC 300 committee did not feel it was appropriate to require guards in a two or three row bleacher system. The guard height would be measured from the seatboard to address when people stand on the seats. Where seats are self rising, the guard height would be measured from the floor. Self-rising seats have backs and are very difficult to stand on.
  - Exception 1 is to allow for the limited situation where the guards at the sides of the seating may possible affect the line-or-sight in wide venues.
  - Exception 2 will permit bleacher systems constructed inside the building to use the building walls are perimeter guards if the opening between the bleacher and the wall is less than the opening permitted for guards.
- 1028.14.2 (renumbered 1028.14.3) – The allowance to look at ICC 300 for guards is relocated to the general guard requirement in 1028.14. The exception is not required for two reasons – guard height measured from the seat is addressed in the new section for perimeter guards in 1028.14.1 and the existing text in 1028.14.2 does not require measurement from the seatboard in front of the first balcony row.

The purpose of the ICC 300 standard is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, and safety to life and property relative to the construction, alteration, repair, operation, and maintenance of new and existing temporary and permanent bench bleachers, folding and telescopic seating, and grandstands. Information can be downloaded from the following website: http://www.iccsafe.org/cs/standards/IS-BLE/Pages/default.aspx. Since its inception in March 2000, the committee has produced 3 editions, the latest edition being 2012. All meeting are open to the public.

Cost Impact: None

E165-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1009.16-E-CASELLA-ADHOC.doc

E166 – 12
1029.1 (IFC [B] 1029.1)

Proponent: Arlan Smith, representing Idaho Division of Building Safety (mrlan.smith@dbs.idaho.gov)

Revise as follows:

1029.1 (IFC [B] 1029.1) General. In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue openings in Group R-2 occupancies in accordance with Tables 1021.2(1) and 1021.2(2) and Group R-3 occupancies. Basements and sleeping rooms below the fourth story above grade plane shall have at least one exterior emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, emergency escape and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such openings shall open directly into a public way or to a yard or court that opens to a public way.

Exceptions:

1. Basements with a ceiling height of less than 80 inches (2032 mm) shall not be required to have emergency escape and rescue openings.
2. ~~Emergency escape and rescue openings are not required from basements or sleeping rooms that have an exit door or exit access door that opens directly into a public way or to a yard, court or exterior exit balcony that opens to a public way.~~
3. ~~3~~2. Basements without habitable spaces and having no more than 200 square feet (18.6 m2) in floor area shall not be required to have emergency escape and rescue openings.

Reason: The door described in exception number 2 is an emergency escape and rescue opening. Nothing is the section suggests that a single opening cannot be both the required means of egress and the required emergency escape and rescue opening. There is no need for this exception.

Cost Impact: None

E166-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1029.1-E-SMITH

E167-12
1101.1, 1103.1, E101.1

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1101.1 Scope. The provisions of this chapter shall control the design and construction of facilities for accessibility for individuals with disabilities ~~to physically disabled persons~~.

1103.1 Where required. Sites, buildings, structures, facilities, elements and spaces, temporary or permanent, shall be accessible to individuals ~~persons~~ with ~~physical~~ disabilities.

E101.1 Scope. The provisions of this appendix shall control the supplementary requirements for the design and construction of facilities for *accessibility* for individuals with disabilities ~~to physically disabled persons~~.

Reason: The intent of this provision is to revise for more correct 'people first' language. (ADA 201.1)

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E167-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1101.1- E-BALDASSARRA-CTC.docx

E168-12
1103.2.3-1103.2.15

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1103.2 General exceptions. Sites, buildings, structures, facilities, elements and spaces shall be exempt from this chapter to the extent specified in this section.

1103.2.1 Specific requirements. Accessibility is not required in buildings and facilities, or portions thereof, to the extent permitted by Sections 1104 through 1110.

1103.2.2 Existing buildings. Existing buildings shall comply with Section 3411.

1103.2.3 Employee work areas. Spaces and elements within employee work areas shall only be required to comply with Sections 907.5.2.3.2, 1007 and 1104.3.1 and shall be designed and constructed so that individuals with disabilities can approach, enter and exit the work area. Work areas, or portions of work areas, other than raised courtroom stations in accordance with Section 1108.4.1.4, that are less than 300 square feet (30 m^2) in area and located 7 inches (178 mm) or more above or below the ground or finish floor where the change in elevation is essential to the function of the space shall be exempt from all requirements.

1103.2.4 Detached dwellings. Detached one- and two- family dwellings, ~~and~~ their accessory structures, and their associated sites and facilities, are not required to ~~be accessible~~ comply with this Chapter.

1103.2.5 Utility buildings. ~~Occupancies in~~ Group U occupancies are not required to comply with ~~exempt from the requirements of~~ this chapter other than the following~~:~~

1. In agricultural buildings, access is required to paved work areas and areas open to the general public.
2. Private garages or carports that contain required accessible parking.

1103.2.6 Construction sites. Structures, sites and equipment directly associated with the actual processes of construction including, but not limited to, scaffolding, bridging, materials hoists, materials storage or construction trailers are not required to ~~be~~ comply with this Chapter.

1103.2.7 Raised areas. Raised areas used primarily for purposes of security, life safety or fire safety including, but not limited to, observation galleries, prison guard towers, fire towers or lifeguard stands are not required to ~~be accessible or to be served by an accessible route~~ comply with this Chapter.

1103.2.8 Limited access spaces. ~~Nonoccupiable~~ Spaces accessed only by ladders, catwalks, crawl spaces, freight elevators or very narrow passageways are not required to ~~be accessible~~ comply with this Chapter.

1103.2.9 Equipment spaces. Spaces frequented only by service personnel for maintenance, repair or occasional monitoring of equipment are not required to ~~be accessible~~ to comply with this Chapter. ~~Such spaces include, but are not limited to, elevator pits, elevator penthouses, mechanical, electrical or communications equipment rooms, piping or equipment catwalks, water or sewage treatment pump rooms and stations, electric substations and transformer vaults, and highway and tunnel utility facilities.~~

1103.2.10 Single-occupant structures. Single-occupant structures, accessed only by passageways below grade or above grade including, but not limited to, toll booths that are accessed only by underground tunnels, are not required to ~~be accessible~~. comply with this Chapter.

1103.2.11 Residential Group R-1. Buildings of Group R-1 containing not more than five *sleeping unit*s for rent or hire that are also occupied as the residence of the proprietor are not required to ~~be *accessible*~~ comply with this Chapter.

1103.2.12 Day care facilities. Where a day care facility is part of a *dwelling unit*, only the portion of the structure utilized for the day care facility is required to be accessible.

1103.2.13 Live/work units. In live/work units constructed in accordance with Section 419, the portion of the unit utilized for nonresidential use is required to be *accessible*. The residential portion of the live/work unit is required to be evaluated separately in accordance with Sections 1107.6.2 and 1107.7.

1103.2.14 Detention and correctional facilities. In detention and correctional facilities, *common use* areas that are used only by inmates or detainees and security personnel, and that do not serve holding cells or housing cells required to be ~~*accessible*~~ Accessible units, are not required to ~~be *accessible* or to be served by an *accessible route*~~ comply with this Chapter.

1103.2.15 Walk-in coolers and freezers. Walk-in coolers and freezers intended for employee use only are not required to ~~be accessible~~ comply with this Chapter.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

The purpose of this proposal is to clarify how these exceptions are applied.

1103.2.3 - Courtrooms work stations are more specifically addressed in 1108.4.1.4. (ADA 203.9)
1103.2.4 - This change is to provide consistency in language between sections by changing "to be accessible" with "comply with this chapter". (not in ADA)
1103.2.5 - Consistency in language between sections. (not in ADA)
1103.2.6 - Consistency in language between sections. (ADA 203.2)
1103.2.7 - Consistency in language between sections. (ADA 203.3)
1103.2.8 – The term "non-occupiable" is not needed because areas accessed only by these methods cannot be occupiable spaces by definition. The second change is for consistency in language between sections. Furthermore the ADA does not require the area to be non-occupiable and intends to allow this to be okay for areas such as stage lighting and sound catwalks (ADA 203.4)
1103.2.9 - The performance language is made clearer and intended to keep this exception from being used for areas that are regularly staffed and could be staffed by a person with disabilities. The laundry list is not needed with the improved performance language and is proposed to be removed. Lastly the consistent terminology was added. (ADA 203.5)
1103.2.10 - Consistency in language between sections. (ADA 203.6)
1103.2.11 - Consistency in language between sections. (ADA definition of Transient Lodging threshold)
1103.2.14 - Consistency in terminology for the section. In addition, jails are only required to have Accessible units in accordance with Section 1107.5.5. This would also be more consistent with the ADA reference (ADA 203.7).
1103.2.15 - Consistency in language between sections (not in ADA).

The intent is for this proposal to correlate with other proposals to revise, remove or relocate specific exceptions.

Cost Impact: None

E168-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1103.2-E-BALDASSARRA-CTC.docx

E169-12
1103.2.2

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Delete without substitution:

~~**1103.2.2 Existing buildings.** Existing buildings shall comply with Section 3411.~~

Reason: This exception is being deleted because it is not needed. Application of the building code for existing buildings begins in chapter 34. The scope of accessibility requirements for existing buildings is specified in chapter 34, specifically in section 3411. IBC chapter 11 is not the scoping chapter for existing building accessibility, therefore this exception in chapter 11 is simply redundant and not needed. It is technically an invalid exception because it is a scoping exception for a chapter that does not scope accessibility for existing buildings. Other chapters of the IBC do not have a similar exception because the general scope of the IBC is for new construction with Chapter 34 applicable to scope the IBC or IEBC for existing construction. The general scope of application of the IBC and IEBC to existing buildings is established in IBC Chapter 34; the IEBC as referenced by IBC section 3401.6 as an alternative to IBC chapter 34.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E169-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1103.2.2-E-BALDASSARRA-CTC.docx

E170 – 12
1103.2.8

Proponent: Randall R. Dahmen, P.E. Wisconsin licensed Commercial Building Inspector, representing self

Revise as follows:

1103.2.8 Limited access spaces. Nonoccupiable spaces accessed only by ladders, catwalks, crawl spaces, freight elevators, ~~or~~ very narrow passageways or tunnels are not required to be *accessible*.

Reason: The proposed additional language will clarify an additional nonoccupiable space within a building previously not listed.

Cost Impact: The code change proposal will not increase the cost of construction.

E170-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1103.2.8-E-Dahmen.doc

E171-12/13
1103.2.8 (New)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Add text as follows:

1103.2.8 Areas in places of religious worship. Raised or lowered areas, or portions of areas, in places of religious worship that are less than 300 sq.ft. (30 m^2) in area and located 7 inches or more (178 mm) or more above or below the finished floor and used primarily for the performance of religious ceremonies are not required to comply with this chapter.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

The IBC requires religious buildings to be fully accessible. Many religious architectural building features based on traditions and rituals result in raised areas or recessed areas within the sanctuary or worship area. It can be difficult, beyond a reasonable accommodation, to provide full accessibility to these raised and lowered areas for religious use. Some examples of these types of architectural features are: Altars, bimahs, baptisteries, pulpits, minbars, and minarets. Some pictures of these features are provided below. An additional issue is the Americans with Disabilities act section 307 exempts' religious organizations and religions buildings (the entire building) from compliance with the act. Do to the ADA exemption accessibility to specific church architectural elements such as those listed above have never been developed and are not specifically addressed in the ADA, A117.1 standard, or IBC. Therefore, even if an accessible route is provided to these areas there is no guidance in the A117.1 standard as to how to make a religious feature such as a baptistery accessible. This proposed exception is similar to the practical allowances already permitted for raised employee areas in courtrooms, raised employee work areas, and raised areas within some sports facilities (i.e., referee stands). The proposed Section 1103.2.8 would exempt reasonably sized areas in recognition of the religious practices and traditions incorporated into the religious architectural features common in religious architecture. A similar change was submitted during the 09/10 code development cycle (E158 09/10). The Egress Committee denied the code change and stated in their reason that such an exemption has merit but a size limitation was needed. To respond to the committee comment a 300 square foot area limitation was added. The 300 square foot area is based on the employee work area exemption area limit (IBC 1103.2.3).

Report of the hearings for E158 09/10:

E158-09/10
Committee Action: Disapproved
Committee Reason: While there should be allowances for some areas within a church, there needs to be some sort of size limitations. A possible interpretation could be that the entire church was used for religious ceremonies, which is not consistent with the intent of the proponent.

Raised pulpit in Washington cathedral.

Minbar in mosque.

Full immersion baptisteries in Baptist or Greek orthodox.

High alter in Greek orthodox.

Raised area in synagogue for torah

Cost Impact: None

E171-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1103.2.8-E-BALDASSARRA-CTC.docx

E172 – 12
1103.2.9 (New)

Proponent: Randall R. Dahmen, P.E. Wisconsin licensed Commercial Building Inspector, representing self

Add new text as follows:

1103.2.9 Storage spaces. Storage spaces that do not include permanent workstations, are infrequently accessed by employees, and are not open to the general public are not required to be accessible.

Reason: The proposed language will clarify accessibility limitations as addressed by ADAAG within the IBC.

Cost Impact: The code change proposal will not increase the cost of construction.

E172-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1103.2.8.1-E-Dahmen.doc

E173-12
1103.2.10

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1103.2.10 Highway toll-booths ~~Single-occupant structures~~. Highway toll-booths where the access is only provided by bridges above the vehicular traffic or underground tunnels, are not required to comply with this Chapter. ~~Single-occupant structures, accessed only by passageways below grade or above grade including, but not limited to, toll booths that are accessed only by underground tunnels, are not required to be accessible.~~

Reason: This exception was based on ADA section 203.6. The intent of the federal exception was that it apply exclusively to highway toll booths. The problem with the current IBC text is that this exception is currently miss-used for a variety of structures that were not intended to be exempted. Since the intent of the exception was specific to toll booths that required access from above or below the highway, and that are typically elevated on a curb, this proposal changes the exception be specific to highway toll booths.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E173-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1103.2.10-E-BALDASSARRA-CTC.docx

E174-12
1103.2.12

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Delete without substitution:

~~**1103.2.12 Day care facilities.** Where a day care facility is part of a *dwelling unit*, only the portion of the structure utilized for the day care facility is required to be accessible.~~

Reason: This exception is invalid within the context of the IBC. A day care facility cannot be part of a dwelling unit because they are two distinct occupancies. If a day care facility and a dwelling unit are in the same building then the building is a mixed occupancy building and the accessibility provisions for each occupancy are applicable, and no exception is required or appropriate. The dwelling unit portion would be a Group R-2 or R-3; the day care facility would be Group I-4, I-2 or E. Accessibility requirements would be scoped to each occupancy group accordingly.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E174-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1103.2.12-E-BALDASSARRA-CTC.docx

E175-12
1103.2.13, 1107.6.2.1, 1107.6.2.2

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

~~**1103.2.13**~~ **1107.6.2.1 Live/work units.** In live/work units constructed in accordance with Section 419, the nonresidential portion ~~of the unit utilized for nonresidential use~~ is required to be *accessible*. In a structure, where there are four or more live/work units intended to be occupied as a residence, the residential portion of the live/work unit ~~is required to be evaluated separately in accordance with Sections 1107.6.2 and 1107.7~~ shall be a Type B unit.

> **Exception:** The number of Type B units is permitted to be reduced in accordance with Section 1107.7.

~~**1107.6.2.1**~~ **1107.6.2.2 Apartment houses, monasteries and convents.** *(no change to text)*

~~**1107.6.2.2**~~ **1107.6.2.3 Group R-2 other than live/work units, apartment houses, monasteries and convents.** In Group R-2 occupancies, other than live/work units, apartment houses, monasteries and convents not falling within the scope of Section 1107.6.2.1 and 1107.6.2, Accessible units and Type B units shall be provided in accordance with Sections 1107.6.2.2.1 and 1107.6.2.2.2.

Reason: This section regarding live/work units is not an exception, it provides specific requirements for accessibility in live/work units, and therefore the section is incorrectly located in the general exceptions section. This code change will move the section to the appropriate section within chapter 11. Since a Live/work unit is a Group R-2 occupancy, the provisions should be grouped with R-2 dwelling unit requirements in section 1107. The change to the first sentence is just to simplify the sentence by replacing seven words with one. The change to the second sentence and added exception accomplishes the same thing as the current reference to Section 1107.6.2 and 1107.7 but provides the requirements and exceptions for Type B units in the section so that the code user does not need to go the referenced sections to discover the four unit threshold for Type B unit requirements.

The changes to 1107.6.2.2 are correlative due to the relocation of 1103.2.13.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as “areas of study”. Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E175-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1103.2.13-E-BALDASSARRA-CTC.docx

E176 – 12
1103.2.16 (New)

Proponent: David R. Scott, AIA, representing Target Corporation (David.Scott@Target.com)

Add new text as follows:

1103.2.16 Display areas. Display areas that do not exceed 300 square feet (30 m^2) in area and are not open to the public are not required to be accessible.

Reason: Access to these display areas are not intended by the general public. We feel Section 1103.2.8 Limited access spaces, do not clearly identify that display areas would fall under this section. We have established a size of 300 sq. ft. to give a limit to a size of a display area as well as to tie into the size established in Section 1103.2.3.

Cost Impact: The code change proposal will not increase the cost of construction.

E176-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1103.2.16 (new)-E-Scott.doc

E177-12
1104.1, 1104.3

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1104.1 Site arrival points. At least one accessible ~~routes~~ route within the site shall be provided from public transportation stops; accessible parking; accessible passenger loading zones; and public streets or sidewalks to the accessible building entrance served.

1104.3 Connected spaces. When a building or portion of a building is required to be accessible, ~~an~~ at least one accessible route shall be provided to each portion of the building, to accessible building entrances connecting accessible pedestrian walkways and to the public way.

Reason: Adding 'at least one' would clarify that one route is to be accessible, not necessarily every route. This is consistent with ADA 206.2.1 and 206.2.4.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E177-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1104.1-E-BALDASSARRA-CTC.docx

E178-12
1104.3, 1104.4

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1104.3 Connected spaces. When a building or portion of a building is required to be *accessible*, an *accessible route* shall be provided to each portion of the building, to *accessible* building entrances connecting *accessible pedestrian walkways* and the *public way*.

Exceptions:

1. Stories and mezzanines exempted by Section 1104.4.
~~1~~2. In a building, room or space used for assembly purposes with *fixed seating*, an *accessible route* shall not be required to serve levels where *wheelchair spaces* are not provided.
~~2~~3. In Group I-2 facilities, doors to *sleeping unit*s shall be exempted from the requirements for maneuvering clearance at the room side provided the door is a minimum of 44 inches (1118 mm) in width.
4. Vertical access to elevated employee work stations within a courtroom is not required at the time of initial construction, provided a *ramp*, lift or elevator can be installed without requiring reconfiguration or extension of the courtroom or extension of the electrical system.

1104.4 Multilevel buildings and facilities. At least one *accessible route* shall connect each *accessible* ~~level~~ story~~, including mezzanines~~ and *mezzanine*, in multilevel buildings and facilities.

Exceptions:

1. An *accessible route* is not required to stories and *mezzanines* that have an aggregate area of not more than 3,000 square feet (278.7 m^2) and are located above and below *accessible* levels. This exception shall not apply to:
   1.1. Multiple tenant facilities of Group M occupancies containing five or more tenant spaces used for the sales or rental of goods and where at least one such tenant space is located on a floor level above or below the accessible levels;
   1.2. ~~Levels~~ Stories or mezzanines containing offices of health care providers (Group B or I); or
   1.3. Passenger transportation facilities and airports (Group A-3 or B).
   1.4 Government buildings.
2. ~~Levels~~ Stories or mezzanines that do not contain *accessible* elements or other spaces as determined by Section 1107 or 1108 are not required to be served by an *accessible route* from an *accessible* level.
3. In air traffic control towers, an *accessible route* is not required to serve the cab and the floor immediately below the cab.
4. Where a two-story building or facility has one *story* or mezzanine with an *occupant load* of five or fewer persons that does not contain *public use* space, that *story* or mezzanine shall not be required to be connected by an *accessible route* to the *story* above or below.
5. ~~Vertical access to elevated employee work stations within a courtroom is not required at the time of initial construction, provided a *ramp*, lift or elevator can be installed without requiring reconfiguration or extension of the courtroom or extension of the electrical system.~~

Reason: The intent is to address vertical access within a floor, and between stories. The committee proposes to provide exceptions consistent with 2010 ADA with the exception of the 2nd story limitation currently in the code (1104.3 Exception 1).

Therefore, this proposal is to coordinate with ADA accessibility provisions that are less than currently in IBC or more specifically addressed than in IBC. Sections 1104.3 is intended to deal with connecting all accessible spaces, with a reference to 1104.4 for changes in elevation of a story or to a mezzanine. Section 1104.4 addresses changes in elevation where typically the route is via an elevator. There is a similar proposal for coordination between Sections 1107.3 and 1107.4.

Specific reasons for each revision are as follows:

- 1104.3 Connected spaces –
  - New exception 1 is coordination with the 'elevator' exception between mezzanines and stories in Section 1104.4. (ADA 206.2.4 main text and Exp. 3)
  - Current exception 1, now exception 2, addresses tiered seating in assembly areas that comply with 1108 for wheelchair spaces and dispersion. (ADA 206.2.4, Exp. 2)
  - Current exception 2, new Exception 3 – Coordination with ADA 404.2.4 Exception for maneuvering clearance at Group I-2 hospital doors is addressed in a separate proposal.
  - New exception 4 – relocated from 1104.4 exception 5, since courtroom access is a level change, not a story change (AD 206.2.4, exp. 1).
- 1104.4 Multilevel buildings and facilities – An accessible route must connect stories and mezzanine. The intent is for this section to mainly deal with changes that typically use an elevator (ADA 206.2.3). The ADA and IBC refer to stories and mezzanines with a difference in terminology.
  - Exception 1.1 – further coordination with the ADA description of shopping mall or shopping center and the intent of this limitation to apply only to when a tenant is only on a non-accessible level. (ADA 206.2.3. Exp. 1)
  - Exception 1.2 – clarifies the terminology differences between ADA and IBC for mezzanines
  - Exception 1.4 – the intent is to address Title II buildings and/or public entities without having to go into funding issues. The description does not have to be as extensive because the IBC 2nd floor exception is much smaller than ADA Title III.
  - Exception 2 – clarifies the terminology differences between ADA and IBC for mezzanines
  - Exception 5 – relocated to 1104.3

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Cost Impact: None

E178-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1104.3 #1-E-BALDASSARRA-CTC.docx

E179-12
1104.3, 1107.3, 1107.5.3.1

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1104.3 Connected spaces. When a building or portion of a building is required to be *accessible*, an *accessible route* shall be provided to each portion of the building, to *accessible* building entrances connecting *accessible pedestrian walkways* and the *public way*.

Exceptions:

1. In a building, room or space used for assembly purposes with *fixed seating*, an *accessible route* shall not be required to serve levels where *wheelchair spaces* are not provided.
2. ~~In Group I-2 facilities, doors to *sleeping units* shall be exempted from the requirements for maneuvering clearance at the room side provided the door is a minimum of 44 inches (1118 mm) in width.~~

1107.3 Accessible spaces. Rooms and spaces available to the general public or available for use by residents and serving *Accessible units*, *Type A units* or *Type B units* shall be *accessible*. *Accessible* spaces shall include toilet and bathing rooms, kitchen, living and dining areas and any exterior spaces, including patios, terraces and balconies.

Exceptions:

1. Recreational facilities in accordance with Section 1109.15.
2. ~~In Group I-2 facilities, doors to *sleeping units* shall be exempted from the requirements for maneuvering clearance at the room side provided the door is a minimum of 44 inches (1118 mm) in width.~~

1107.5.3 Group I-2 hospitals. *Accessible units* and *Type B units* shall be provided in general-purpose hospitals, psychiatric facilities and detoxification facilities of Group I-2 occupancies in accordance with Sections 1107.5.3.1 and 1107.5.3.2.

1107.5.3.1 Accessible units. At least 10 percent, but not less than one, of the *dwelling units* and *sleeping units* shall be *Accessible units*.

Exception: Entry doors to Accessible dwelling or sleeping units shall not be required to provide the maneuvering clearance beyond the latch side of the door.

Reason: The intent of the proposal is for coordination with the 2010 ADA Standard of Accessible Design for hospital doors. The 2010 ADA includes the following.

404.2.4 Maneuvering Clearances. Minimum maneuvering clearances at doors and gates shall comply with 404.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.

EXCEPTION: Entry doors to hospital patient rooms shall not be required to provide the clearance beyond the latch side of the door.

The current IBC text is written for all Group I-2 while the ADA requirements have exceptions for hospitals. The exception for the maneuvering clearances do not match ADA. By relocating the requirement as an exception specifically for the rooms which are required to be Accessible (Section 1107.5.3.1), it is clear that the entrances to the Accessible patient sleeping rooms are the rooms that can use the exception, as well making it clear that the intent is to allow these rooms to not meet the unit entry requirements in ICC A117.1 Section 1002.5.

Patients in hospitals are typically moved around the hospitals on stretchers or gurney's and if not, they are accompanied by staff when being moved in wheelchairs. The ADA recognized this difference in hospitals and included an exception. At this time, the ICC A117.1 does not include an exception specific to hospital room doors.

This proposal is submitted by the ICC Ad Hoc Committee on Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E179-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1104.3-E-Williams-Adhoc.docx

E180-12
1104.3.2

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1104.3.2 Press boxes. Press boxes in a building, room or space used for assembly purposes shall be on an accessible route.

Exceptions:

1. An accessible route shall not be required to press boxes in bleachers that have a single point ~~points~~ of entry ~~at only one level~~ from the bleachers, provided that the aggregate area of all press boxes for each playing field is not more than 500 square feet (46 m^2) ~~maximum~~.
2. An accessible route shall not be required to free-standing press boxes that are ~~elevated~~ more than ~~above grade~~ 12 feet (3660 mm) above grade ~~minimum~~ provided that the aggregate area of all press boxes for each playing field is not more than 500 square feet (46 m^2) ~~maximum~~.

Reason: This proposed change takes into consideration the intent of the ADA requirements and adds language consistent with that intent but clarifies the intended limitations of the exceptions. It should be noted however, that remaining questions exist regarding press boxes. For example what constitutes a "press box"? Would a small raised platform used by an announcer at a small community softball field be considered a press box? What if that raised platform is less than 50 sq. ft. in area, but accessed by a ladder and less than 12 ft. above grade? A "press box" is undefined. The intent of these exceptions relates to a more substantial "press box", and these proposed changes address questions that have been raised about those "press boxes". *(ADA 206.2.7)*

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E180-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1104.3.2-E-BALDASSARRA-CTC.docx

E181-12
1104.4

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1104.4 Multilevel buildings and facilities. At least one accessible route shall connect each accessible level, including mezzanines, in multilevel buildings and facilities.

Exception:

1 through 4. *(No change to text)*

5. Vertical access to elevated employee work stations within a courtroom ~~is not required at the time of initial construction, provided a ramp, lift or elevator can be installed without requiring reconfiguration or extension of the courtroom or extension of the electrical system.~~ complying with Section 1108.4.1.4.

Reason: The intent of this proposal is remove redundant text and to coordinate with Section 1108.4.1.4. There is no technical change. This allowance is addressed in ADA 206.2.4 Exception 1.

Section 1108.4.1.4 reads as follows:

1108.4.1.4 Employee work stations. The judge's bench, clerk's station, bailiff's station, deputy clerk's station and court reporter's station shall be located on an accessible route. The vertical access to elevated employee work stations within a courtroom is not required at the time of initial construction, provided a ramp, lift or elevator can be installed without requiring reconfiguration or extension of the courtroom or extension of the electrical system.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E181-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1104.4-E-BALDASSARRA-CTC.docx

E182-12
1105.1.6, 1105.1.7 (New)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1105.1.6 Tenant spaces, ~~dwelling units and sleeping units~~. At least one accessible entrance shall be provided to each tenant, ~~dwelling unit and sleeping unit~~ in a facility.

Exceptions:

~~1.~~ An accessible entrance is not required to self-service storage facilities ~~tenants~~ that are not required to be accessible.

~~2. An accessible entrance is not required to dwelling units and sleeping units that are not required to be Accessible units, Type A units or Type B units.~~

1105.1.7 Dwelling units and sleeping units. At least one accessible entrance shall be provided to each dwelling unit and sleeping unit in a facility.

Exception: An accessible entrance is not required to dwelling units and sleeping units that are not required to be Accessible units, Type A units or Type B units.

Reason: Grouping tenant spaces, dwelling and sleeping spaces together in this section has created some unintended confusion related to this section and other provisions. Some users of the code have referred to this section as an indication that "tenant" means a tenant in an apartment building also and have misapplied provisions intended specifically for commercial buildings.

The term "tenant" is not used in the code or in the federal rules or law to relate to residential conditions. By separating the terms, the misapplication will be eliminated.

The exception was added to distinguish the limitations related to units in self-storage facilities consistent with Section 1108.3 and the 2010 ADA Standards..(ADA 206.4.5) This will cause no conflict with Fair Housing.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E182-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1105.1.6-E-BALDASSARRA-CTC.docx

E183-12
1106.1, 1106.2

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1106.1 Required. Where parking is provided, accessible parking spaces shall be provided in compliance with Table 1106.1, ~~except~~ and as required by Sections 1106.2 through 1106.4. Where more than one parking facility is provided on a site, the number of parking spaces required to be accessible shall be calculated separately for each parking facility.

1106.2 Groups I-1, R-1, R-2 and R-4 ~~R-2 and R-3.~~ In addition to the parking required by Table 1106.1, in Groups I-1, R-1, R-2 and R-4, where parking is provided for Accessible and Type A units, at least one accessible parking space shall be provided for each unit. ~~At least 2 percent, but not less than one, of each type of parking space provided for occupancies in Groups R-2 and R-3, which are required to have Accessible, Type A or Type B dwelling or sleeping units, shall be accessible.~~ Where parking is provided within or beneath a building, accessible parking spaces shall also be provided within or beneath the building.

1106.3 Hospital outpatient facilities. At least 10 percent, but not less than one, of care recipient and visitor parking spaces provided to serve hospital outpatient facilities shall be accessible.

1106.4 Rehabilitation facilities and outpatient physical therapy facilities. At least 20 percent, but not less than one, of the portion of care recipient and visitor parking spaces serving rehabilitation facilities specializing in treating conditions that affect mobility and outpatient physical therapy facilities shall be accessible.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

When parking is provided for residents, this proposal would require an accessible space for each Accessible and Type A unit, as well as accessible parking for the remainder of the units. This should meet both ADA and FHA. Literally, current IBC is asking for 2% of the parking provided for the three types of accessible units. 2010 ADA requires 2% of parking for all units that are not Accessible or Type A only when there is more than one parking space per unit. Table 1106.1 already gets you more than 2%. (2010 *ADA 208.3.2)*

Since Accessible units also required in Group I-1 assisted living, and these facilities may provide parking for residents, this Group has been added to the list. If the assisted living facility does not provide parking spaces for residents, the parking lots would just meet the general parking lot requirements.

Section 1106.3 and 1106.4 are relevant to only portions of the parking facilities for hospitals and rehabilitation facilities. Areas such as employee parking should use Table 1106.1 for the number of accessible spaces.

Cost Impact: None

E183-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1106.1#2-E-BALDASSARRA-CTC.docx

E184 – 12
1106.6 (New)

Proponent: Alan Manche, P.E., Schneider Electric representing self

Add new text as follows:

1106.6 Electric Vehicle Charging. Where electrical vehicle charging stations are provides, and more than 250 total parking spaces are provided, not less than one accessible space shall be served with an electric vehicle charging station. An electric vehicle charging station shall serve an additional accessible parking space for each additional 500 parking spaces or fraction thereof.

(Renumber subsequent sections)

Reason: Electric Vehicle Charging Stations are currently not location restricted and may not be located near an entrance providing accessibility. This code language seeks to provide electric vehicle charging for those with accessible needs that may choose to own an electric or plug-in hybrid car. The 250 parking space trigger seeks to provide electric vehicle charging for those parking lots with a high probably of an electric vehicle visiting the location. It also seeks to ensure those needing accessible parking are able to use their electric vehicle without being challenged by the location of those chargers. It should also be noted that proper placement of an electric vehicle charging station can also provide charging for other than accessible parking spaces, hence the reason for using the term "serve."

Cost Impact: The code proposal will increase construction cost for large commercial facilities with a large parking space. The 250 parking space requirement limits cost impact to small business.

E184-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1106.8-E-Manche.doc

E185-12
1107.3, 1107.4, 1109.8

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1107.3 Accessible spaces. Rooms and spaces available to the general public or available for use by residents and serving *Accessible units*, *Type A units* or *Type B units* shall be *accessible*. *Accessible* spaces shall include toilet and bathing rooms, kitchen, living and dining areas and any exterior spaces, including patios, terraces and balconies.

Exceptions:

1. Stories and mezzanines exempted by Section 1107.4.
2~~1.~~ Recreational facilities in accordance with Section 1109.15.
3~~2.~~ In Group I-2 facilities, doors to *sleeping unit*s shall be exempted from the requirements for maneuvering clearance at the room side provided the door is a minimum of 44 inches (1118 mm) in width.
4. Exterior decks, patios or balconies that are part of *Type B units* and have impervious surfaces, and that are not more than 4 inches (102 mm) below the finished floor level of the adjacent interior space of the unit.

1107.4 Accessible route. At least one *accessible route* shall connect *accessible* building or facility entrances with the primary entrance of each *Accessible unit*, *Type A unit* and *Type B unit* within the building or facility and with those exterior and interior spaces and facilities that serve the units.

Exceptions:

1. If due to circumstances outside the control of the owner, either the slope of the finished ground level between *accessible* facilities and buildings exceeds one unit vertical in 12 units horizontal (1:12), or where physical barriers or legal restrictions prevent the installation of an *accessible route*, a vehicular route with parking that complies with Section 1106 at each *public* or *common use* facility or building is permitted in place of the *accessible route*.
~~2. Exterior decks, patios or balconies that are part of *Type B units* and have impervious surfaces, and that are not more than 4 inches (102 mm) below the finished floor level of the adjacent interior space of the unit.~~
2. In Group I-3 facilities, an accessible route is not required to connect stories or mezzanines where Accessible units, all common use areas serving Accessible units and all public use areas are on an accessible route.
3. In Group R-2 facilities with Type A units complying with Section 1107.6.2.1.1 an accessible route is not required to connect stories or mezzanines where Type A units, all common use areas serving Type A units and all public use areas are on an accessible route.
4. In other than Group R-2 dormitory housing provided by places of education, in Group R-2 facilities with Accessible units complying with Section 1107.6.2.2.1 an accessible route is not required to connect stories or mezzanines where Accessible units, all common use areas serving Accessible units and all public use areas are on an accessible route.
5. In Group R-1 an accessible route is not required to connect stories or mezzanines within individual units, provided the accessible level meets the provisions for Accessible units and sleeping accommodations for two persons minimum and a toilet facility are provided on that level.
6. In Group R-3 and R-4 congregate residences, an accessible route is not required to connect floors or mezzanines where Accessible units or Type B units, all common use areas serving Accessible units and Type B units and all public use areas serving Accessible and Type B units are on an accessible route.

7. An accessible route between stories is not required where Type B units are exempted by Sections 1107.7.

1109.8 Lifts. Platform (wheelchair) lifts are permitted to be a part of a required *accessible route* in new construction where indicated in Items 1 through 10. Platform (wheelchair) lifts shall be installed in accordance with ASME A18.1.

1. An *accessible route* to a performing area and speaker platforms in Group A occupancies.
2. An *accessible route* to *wheelchair spaces* required to comply with the *wheelchair space* dispersion requirements of Sections 1108.2.2 through 1108.2.6.
3. An *accessible route* to spaces that are not open to the general public with an *occupant load* of not more than five.
4. An *accessible route* within ~~a~~ an individual *dwelling* or *sleeping unit* required to be an Accessible unit, Type A unit or Type B unit.
5. An *accessible route* to wheelchair seating spaces located in outdoor dining terraces in Group A-5 occupancies where the *means of egress* from the dining terraces to a *public way* are open to the outdoors.
6. An *accessible route* to jury boxes and witness stands; raised courtroom stations including judges' benches, clerks' stations, bailiffs' stations, deputy clerks' stations and court reporters' stations; and to depressed areas such as the well of the court.
7. An *accessible route* to load and unload areas serving amusement rides.
8. An *accessible route* to play components or soft contained play structures.
9. An *accessible route* to team or player seating areas serving areas of sport activity.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

The intent is to address vertical access within a floor, and between stories. The committee proposes to provide exceptions consistent with 2010 ADA, however, the decision was not to differentiate between public or private schools when dealing with dorm access.

Therefore, this proposal is to coordinate with ADA accessibility provisions that are less than currently in IBC or more specifically addressed than in IBC. Sections 1107.3 is intended to deal with connecting all accessible spaces within a building, with a reference to 1107.4 for changes in elevation of a story or to a mezzanine. Section 1107.4 addresses changes in elevation where typically the route is via an elevator and access on the site. There is a similar proposal for coordination between Sections 1104.3 and 1104.4.

Specific reasons for each revision are as follows:

- 1107.3 Accessible spaces –
  - New exception 1 is a reference to the 'elevator' exception between mezzanines and stories in Section 1107.4. (ADA 206.2.4 main text and Exp. 3)
  - Current exception 2, new Exception 3 – Coordination with ADA 404.2.4 Exception for maneuvering clearance at Group I-2 hospital doors is addressed in a separate proposal.
  - New exception 4 – relocated exception 2 from 1107.4 since this is an elevation change, not a story change
- 1107.4 Accessible routes –
  - Current exception 2 – relocated to 1107.3
  - New exception 2 – an accessible route is not required in jails where there are no Accessible units on upper levels. (ADA 206.2.3, Exp. 3)
  - New exception 3 – In large apartments, convents or monasteries, where Type A units are required, a route is not required to other stories in the building if all common use spaces are also on the accessible level. This is also consistent with FHA exception for Type B units. (ADA 206.2.2 Exp. 4)
  - New exception 4 – In sororities or fraternities, an accessible route is not required to other stories when the Accessible units and public and common spaces are on the accessible level. Dormitories in places of education, as Title II buildings, are required to have an accessible on all levels. (ADA 206.2.3 Exp. 4)
  - New exception 5 – Multi-story hotel rooms in hotels are not required to have an route between floors where a sleeping area and toilet are located on the accessible level (ADA 206.2.3 Exp. 5)
  - New exception 6 – In small sororities, fraternities and group homes, an accessible route is not required to a 2nd floor if Accessible and Type B units and all public and common spaces are on the accessible level.
  - New exception 7 – coordination with buildings without elevators and FHA Type B units in 1107.7.
- 1109.8 Lifts –
  - Item 4 – coordination with limits for platform lifts serving only individual units in ADA 206.7.3.

Cost Impact: None

E185-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1107.3-E-BALDASSARRA-CTC.docx

E186-12/13
1107.5.1.1, 1107.6.4.1

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1107.5.1 Group I-1. *Accessible units* and *Type B units* shall be provided in Group I-1 occupancies in accordance with Sections 1107.5.1.1 and 1107.5.1.2.

1107.5.1.1 Accessible units. In Group I-1, other than assisted living facilities, at least 4 percent, but not less than one, of the *dwelling units* and *sleeping unit*s shall be *Accessible units*. In Group I-1 assisted living facilities, at least 10 percent, but not less than one, of the *dwelling units* and *sleeping unit*s shall be *Accessible units.*

1107.5.1.2 Type B units. In structures with four or more *dwelling units* or *sleeping unit*s *intended to be occupied as a residence*, every *dwelling unit* and *sleeping unit intended to be occupied as a residence* shall be a *Type B unit*.
Exception: The number of *Type B units* is permitted to be reduced in accordance with Section 1107.7.

1107.6.4 Group R-4. *Accessible units* and *Type B units* shall be provided in Group R-4 occupancies in accordance with Sections 1107.6.4.1 and 1107.6.4.2.

1107.6.4.1 Accessible units. In Group R-4, other than assisted living facilities, at least one of the *dwelling* or *sleeping unit*s shall be an *Accessible unit*. In Group R-4 assisted living facilities, at least two of the *dwelling* or *sleeping unit*s shall be an *Accessible unit*.

1107.6.4.2 Type B units. In structures with four or more *dwelling units* or *sleeping unit*s *intended to be occupied as a residence*, every *dwelling unit* and *sleeping unit intended to be occupied as a residence* shall be a *Type B unit*.

> **Exception:** The number of *Type B units* is permitted to be reduced in accordance with Section 1107.7.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

The intent of this code change is to establish a minimum number of Accessible units required in Assisted Living Facilities for Group I-1 and R-4. The 10% Accessible units is based on anticipated need in these types of facilities.

The curre nt ADA requirements address residential facilities and long term care facilities, typically hospitals and nursing homes. The text does not directly address what the International Codes refer to as Assisted Living or Group I-1 facilities. The current text requires the following: 100% Accessible units in Group I-2 rehabilitation facilities; 50% Accessible units in Group I-2 nursing homes; 4% Accessible units in all Group I-1 and 2% Type A units in Group R-2 apartment buildings. The 2009 IBC had 10% Accessible units for residential board and care facilities, but the deletion of that term in the 2012 IBC resulted in the loss of that requirement. This addition will establish a minimum level for Group I-1 assisted living facilities while leaving other Group I-1 facilities to remain at 4%. Facilities can always choose to exceed this limit depending on the needs of their clientele and the desire of the facility to have optimum flexibility. Since these facilities are custodial care, and not nursing care, 10% Accessible units should meet demand.

The committee feels that if the building code addresses the minimum accessibility needs for these types of facilities, then the federal government may not feel that they need to establish additional accessibility requirements.

Cost Impact: Increase

E186-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1107.5.1-E-BALDASSARRA

E187-12
1107.5.5.1

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1107.5.5.1 Group I-3 sleeping units. In Group I-3 occupancies, at least ~~2~~ 3 percent of the total number of sleeping units in the facility, but not less than one unit in each classification level, ~~of the dwelling units and sleeping units~~ shall be Accessible units.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

The purpose is to coordinate with DOJ regulations which have increased the requirement in 2010 ADA.

DOJ Regulations regarding jails includes the following:

DOJ Regulations 35.151 (k)(1) New construction of jails, prisons, and other detention and correctional facilities shall comply with the 2010 Standards except that public entities shall provide accessible mobility features complying with section 807.2 of the 2010 Standards for a minimum of 3%, but no fewer than one, of the total number of cells in a facility. Cells with mobility features shall be provided in each classification levels.(ADA 232.2.1)

Based on this information this proposal is asking for an increase in the percentage of Accessible units over the 2% specified in ADA Section 232.2.1. The term, 'dwelling units' is struck because there are no dwelling units within jails. The proposal does not specifically follow the language regarding dispersion because IBC Section 1107.5.5.2 and 1107.5.5.3 already have additional Accessible cells required for specialty cells and medical cells.

Cost Impact: None

E187-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1107.5.5.1-E-BALDASSARRA-CTC.docx

E188-12/13
1107.6.1.1

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1107.6.1.1 Accessible units. Accessible dwelling units and sleeping units shall be provided in accordance with Table 1107.6.1.1. Where buildings contain more than 50 dwelling or sleeping units, the number of Accessible units shall be determined per building. Where buildings contain 50 or fewer dwelling or sleeping units, all dwelling units and sleeping units on a site shall be considered to determine the total number of Accessible units. Accessible units shall be dispersed among the various classes of units. ~~Roll-in showers provided in Accessible units shall include a permanently mounted folding shower seat.~~

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

The intent of this proposal is to coordinate with the counting unit requirements within hotels with ADA (224.5) and the DOJ regulations. IBC addresses multiple buildings on a site making up the whole hotel. DOJ regulations address units in multiple buildings depending on the size of the buildings.

DOJ regulations are as follows:

36.406 (c) Places of lodging. Places of lodging subject to this part shall comply with the provisions of the 2010 Standards applicable to transient lodging, including, but not limited to, the requirements for transient lodging guest rooms in sections 224 and 806 of the 2010 Standards (pp. 82 and 210).

(1) Guest rooms. Guest rooms with mobility features in places of lodging subject to the transient lodging requirements of 2010 Standards shall be provided as follows—

(i) Facilities that are subject to the same permit application on a common site that each have 50 or fewer guest rooms may be combined for the purposes of determining the required number of accessible rooms and type of accessible bathing facility in accordance with table 224.2 to section 224.2 of the 2010 Standards (pp 83).

(ii) Facilities with more than 50 guest rooms shall be treated separately for the purposes of determining the required number of accessible rooms and type of accessible bathing facility in accordance with table 224.2 to section 224.2 of the 2010 Standards (p. 83).

The last sentence is no longer needed since ICC A117.1 requires all roll-in showers to have transfer seats.

Cost Impact: None

E188-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1107.6.1.1-E-BALDASSARRA-CTC.docx

E189-12/13
1107.6.1.1.1, E104.2, E104.2.1

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Delete without substitution:

~~**1107.6.1.1.1 Accessible unit facilities.** All interior and exterior spaces provided as part of or serving an Accessible dwelling unit or sleeping unit shall be accessible and be located on an accessible route.~~

~~**Exceptions:**~~

1. ~~Where multiple bathrooms are provided within an Accessible unit, at least one full bathroom shall be accessible.~~
2. ~~Where multiple family or assisted bathrooms serve an Accessible unit at least 50 percent but not less than one room for each use at each cluster shall be accessible.~~
3. ~~Five percent, but not less than one bed shall be accessible.~~

~~**E104.2 Accessible beds.** In rooms or spaces having more than 25 beds, 5 percent of the beds shall have a clear floor space complying with ICC A117.1.~~

~~**E104.2.1 Sleeping areas.** A clear floor space complying with ICC A117.1 shall be provided on both sides of the accessible bed. The clear floor space shall be positioned for parallel approach to the side of the bed.~~

~~**Exception:** This requirement shall not apply where a single clear floor space complying with ICC A117.1 positioned for parallel approach is provided between two beds.~~

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

These requirements are addressed in A117.1 in a more complete package and with better coordination with ADA.
IBC 1107.6.1.1.1 main text is already stated in IBC 1107.3.
Exception 1 is now addressed in ICC A117.1 1002.11. In a multi-bathroom unit, only one is required to be accessible.
Exception 2 is already addressed in IBC 1109.2 Exception 3.
Exception 3 would provide higher access in rooms with 25 beds or fewer, and the same for rooms with more than 25.
Appendix E104.2 and 104.2.1 can be deleted since addressed in ICC A117.1 Sections 1002.15.1 and 1002.15.2.

ADA reads as follows:

ADA 224.3 - DOJ Regulations 35.151 (e) 36.406 (d) Social service center establishments.
Group homes, halfway houses, shelters, or similar social service center ….
(1) In sleeping rooms with more than 25 beds covered by this section, a minimum of 5% of the beds shall have clear floor space complying with section 806.2.3 of the 2010 Standards.

Cost Impact: None

E189-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1107.6.1.1.1-E-BALDASSARRA-CTC.docx

E190 – 12
1107.6.2.1, 1107.6.2.1.1

Proponent: Karen L. Braitmayer, FAIA, Studio Pacifica, Ltd., representing self

Revise as follows:

1107.6.2 Group R-2. *Accessible units*, *Type A units* and *Type B units* shall be provided in Group R-2 occupancies in accordance with Sections 1107.6.2.1 and 1107.6.2.2.

1107.6.2.1 Apartment houses, <u>townhouses</u>, monasteries and convents. *Type A units* and *Type B units* shall be provided in apartment houses, <u>townhouses</u>, monasteries and convents in accordance with Sections 1107.6.2.1.1 and 1107.6.2.1.2.

1107.6.2.1.1 Type A units. In Group R-2 occupancies containing more than 20 *dwelling units* or *sleeping unit*s, at least 2 percent but not less than one of the units shall be a *Type A unit*. All Group R-2 units on a *site* shall be considered to determine the total number of units and the required number of *Type A units*. *Type A units* shall be dispersed among the various classes of units.

Exceptions:

1. The number of *Type A units* is permitted to be reduced in accordance with Section 1107.7.
2. *Existing structures* on a *site* shall not contribute to the total number of units on a *site*.
3. <u>Single story townhouses with the same amenities are permitted to be considered the same class as a multi-story unit for purposes of dispersion among the various classes of units.</u>

Reason: When the three legacy codes merged, some townhouse style units could be constructed under IRC or under IBC as a Group R-2 or R-3. The current text is not clear where these types of Group R-2 should fit within the requirements. They are similar to apartments and should be under 1107.6.2.1. ADA has technical guidance that a single story unit can be considered the same class of unit as a multi-story unit if it has the same size, number of bedrooms and bathrooms, etc.

Cost Impact: The code change proposal will not increase the cost of construction.

E190-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1107.6.2.1-E-Braitmayer.doc

E191-12
1107.6.2.1.1, 1107.6.2.2, 1107.6.3, 1107.6.4, 1107.6.4.1, 1107.6.4.2

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1107.6.2 Group R-2. Accessible units, Type A units and Type B units shall be provided in Group R-2 occupancies in accordance with Sections 1107.6.2.1 and 1107.6.2.2.

1107.6.2.1 Apartment houses, monasteries and convents. Type A units and Type B units shall be provided in apartment houses, monasteries and convents in accordance with Sections 1107.6.2.1.1 and 1107.6.2.1.2.

1107.6.2.1.1 Type A units. In Group R-2 occupancies containing more than 20 dwelling units or sleeping units, at least 2 percent but not less than one of the units shall be a Type A unit. All Group R-2 units on a site shall be considered to determine the total number of units and the required number of Type A units. Type A units shall be dispersed among the various classes of units. Bedrooms within monasteries and convents shall be counted as sleeping units for the purpose of determining the number of units.

Exceptions:

1. The number of Type A units is permitted to be reduced in accordance with Section 1107.7.
2. Existing structures on a site shall not contribute to the total number of units on a site.

1107.6.2.1.2 Type B units. Where there are four or more dwelling units or sleeping units intended to be occupied as a residence in a single structure, every dwelling unit and sleeping unit intended to be occupied as a residence shall be a Type B unit.

Exception: The number of Type B units is permitted to be reduced in accordance with Section 1107.7.

1107.6.2.2 Group R-2 other than apartment houses, monasteries and convents. In Group R-2 occupancies, other than apartment houses, monasteries and convents, Accessible units and Type B units shall be provided in accordance with Sections 1107.6.2.2.1 and 1107.6.2.2.2. Bedrooms within congregate living facilities shall be counted as sleeping units for the purpose of determining the number of units.

1107.6.2.2.1 Accessible units. Accessible dwelling units and sleeping units shall be provided in accordance with Table 1107.6.1.1.

1107.6.2.2.2 Type B units. Where there are four or more dwelling units or sleeping units intended to be occupied as a residence in a single structure, every dwelling unit and every sleeping unit intended to be occupied as a residence shall be a Type B unit.

Exception: The number of Type B units is permitted to be reduced in accordance with Section 1107.7.

1107.6.3 Group R-3. In Group R-3 occupancies where there are four or more dwelling units or sleeping units intended to be occupied as a residence in a single structure, every dwelling unit and sleeping unit intended to be occupied as a residence shall be a Type B unit. Bedrooms within congregate living facilities shall be counted as sleeping units for the purpose of determining the number of units.

Exception: The number of Type B units is permitted to be reduced in accordance with Section 1107.7.

1107.6.4 Group R-4. Accessible units and Type B units shall be provided in Group R-4 occupancies in accordance with Sections 1107.6.4.1 and 1107.6.4.2. Bedrooms within congregate living facilities shall be counted as sleeping units for the purpose of determining the number of units.

1107.6.4.1 Accessible units. At least one of the ~~dwelling or~~ sleeping units shall be an Accessible unit.

1107.6.4.2 Type B units. In structures with four or more ~~dwelling units or~~ sleeping units intended to be occupied as a residence, every ~~dwelling unit and~~ sleeping unit intended to be occupied as a residence shall be a Type B unit.

> **Exception:** The number of Type B units is permitted to be reduced in accordance with Section 1107.7.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

The intent is to try and address the new style of dormitory facilities that operate like dorms, but look like apartments. There has also been the interpretation that fraternities and sororities are a single dwelling unit for purposes of accessibility. The statement about congregate residences should help address how to count units for these types of facilities. This should be extended to the 16 or fewer congregate residences permitted in Group R-3 and R-4.

Group R-4 facilities are group homes and therefore are always congregate residences; therefore they will not include dwelling units.

Below is an example of student on-campus housing at Indiana University. While it looks like an apartment, it is handled administratively by the university exactly the same as typical dorm room assignments.

Cost Impact: None

E191-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1107.6.2-E-BALDASSARRA-CTC.docx

E192 – 12
1107.7.2

Proponent: Cheryl Kent, U.S. Department of Housing and Urban Development (cheryl.d.kent@hud.gov)

Revise as follows:

1107.7.2 Multistory units. A multistory dwelling or sleeping unit which is not provided with elevator service is not required to be a Type B unit. Where a multistory unit is provided with external elevator service to only one floor, the floor provided with elevator service shall be the primary entry to the unit, shall comply with the requirements for a Type B unit and a kitchen and toilet facility shall be provided on that floor.

Reason: At the time that HUD's Fair Housing Accessibility Guidelines were drafted, HUD included provisions for multistory units when such units may be located in a building with a public elevator, requiring that the story that is served by the building elevator be the primary entry to the unit, that this story comply with the accessibility requirements of the Fair Housing Act with respect to the rooms located on the entry/accessible floor, and that this floor include a complying bathroom or powder room. It was HUD's expectation that the main living areas, including the kitchen, living and dining rooms would be on this story/floor, but that this story may not always include an accessible bathroom or powder room, so the Guidelines specifically stated that it would. Since that time, there have been new building types introduced into the housing market, including a few situations where multistory units, located in a building with a public elevator, did not have the kitchen located on the story with the primary entry; or there were multiple floors, rather than the typical, 2-story unit with kitchen, living and dining on the main entry level and bedrooms and bathrooms above. As the Fair Housing Act requires usable kitchens and bathrooms, it has been our position that the kitchen also needs to be on the primary entry level of such multistory units. This code change proposal is intended to incorporate this requirement.

Cost Impact: There should be no significant cost impact because the typical building situation in which a multistory unit may be located in a building with public elevator service most often already does include the primary living areas and the kitchen on the primary entry level. In those few situations where this may not be the case, this changed code language will make it clear, from the outset, before design and construction, that the story of the unit that is served by the building elevator will be the primary entry to the unit, will have rooms on this level that comply with the accessibility requirements, including an accessible kitchen and bathroom or powder room; thus assuring that costs, if any, will be minimal.

E192-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1107.7.2-E-Kent.doc

E193 – 12
1107.7.2

Proponent: Karen L. Braitmayer, FAIA, Studio Pacifica, Ltd., representing self

Revise as follows:

1107.7.2 Multistory units. A *multistory dwelling* or *sleeping unit* which is not provided with elevator service is not required to be a Type A unit or a *Type B unit*. Where a *multistory unit* is provided with external elevator service to only one floor, for Type B units the floor provided with elevator service shall be the primary entry to the unit, shall comply with the requirements for a *Type B unit* and a toilet facility shall be provided on that floor. Where a *multistory unit* is provided with external elevator service to only one floor, for Type A units the floor provided with elevator service shall be the primary entry to the unit, shall comply with the requirements for a *Type A unit* and sleeping accommodations for two persons minimum, a kitchen, and a toilet and bathing facility shall be provided on that floor.

Reason: If a development requires Type A units the requirements should be consistent regardless if the buildings are IRC, Group R-2 or Group R-3. The original requirements for the Adaptable (now Type A units) were addressed for standard apartment buildings with single story units, not townhouses or apartments with multiple stories. This proposal would exempt Group R-2 townhouses without elevators from Type A and Type B requirements. Townhouses under IRC and Group R-3 are already exempted. Apartment buildings with two story apartments, would have to provide sleeping, cooking and bathing facilities on the main level of the unit, but would not be required to add a private elevator or platform lift within the unit. The requirements for what is on the ground floor is similar to what is required in the 2010 ADA for multi-story hotel rooms.

Cost Impact: The code change proposal will not increase the cost of construction.

E193-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1107.7.2-E-Braitmayer.doc

E194-12
1108.2.7.1

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1108.2.7.1 Receivers. The number and type of receivers shall be provided for assistive listening systems in accordance with Table 1108.2.7.1.

Exceptions:

1. Where a building contains more than one room or space used for assembly purposes, the total number of required receivers shall be permitted to be calculated according to the total number of seats in the building, provided that all receivers are usable with all systems and if the rooms or spaces used for assembly purposes required to provide assistive listening are under one management.
2. Where all seats in a building, room or space used for assembly purposes are served by an induction loop assistive listening system, the minimum number of receivers required by Table 1108.2.7.1 to be hearing-aid compatible shall not be required.

TABLE 1108.2.7.1
RECEIVERS FOR ASSISTIVE LISTENING SYSTEMS

CAPACITY OF SEATING IN ASSEMBLY AREAS	MINIMUM REQUIRED NUMBER OF RECEIVERS	MINIMUM NUMBER OF RECEIVERS TO BE HEARING-AID COMPATIBLE
50 or less	2	2
51 to 200	2, plus 1 per 25 seats over 50 seats*	2
201 to 500	2, plus 1 per 25 seats over 50 seats*	1 per 4 receivers*
501 to 1,000	20, plus 1 per 33 seats over 500 seats*	1 per 4 receivers*
1,001 to 2,000	35, plus 1 per 50 seats over 1,000 seats*	1 per 4 receivers*
Over 2,000	55, plus 1 per 100 seats over 2,000 seats*	1 per 4 receivers*

*Note: * = or fraction thereof

Reason: The requirements for hearing-aid compatible devices is currently in Table 1108.2.7.1, but it is not in the text.
The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E194-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1108.2.7.1-E-BALDASSARRA-CTC.docx

E195-12
1108.2.9, 1109.8

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1108.2.9 Dining and drinking areas. In dining and drinking areas, all interior and exterior floor areas shall be *accessible* and be on an accessible route.

Exceptions:

1. An *accessible route* between *accessible* leels and stories above or below is not required where permitted by Section 1104.4, Exception 1.
2. ~~In buildings or facilities not required to provide an *accessible route* between stories,~~ an *accessible route* to dining and drinking areas in a *mezzanine* is not required, provided that the *mezzanine* contains less than 25 percent of the total combined area for dining and drinking and the same services~~,~~ and decor ~~and amenities~~ are provided in the *accessible* area.
3. In sports facilities, tiered dining areas providing seating required to be *accessible* shall be required to have *accessible routes* serving at least 25 percent of the dining area, provided that *accessible routes* serve *accessible* seating and where each tier is provided with the same services.
4. Employee only work areas shall comply with Sections 1103.2.3 and 1104.3.1.

1109.8 Lifts. Platform (wheelchair) lifts are permitted to be a part of a required *accessible route* in new construction where indicated in Items 1 through 10. Platform (wheelchair) lifts shall be installed in accordance with ASME A18.1.

1. An *accessible route* to a performing area and speaker platforms ~~in Group A occupancies~~.

(No changes to items 2 through 10)

Reason: This proposal accomplishes a couple of things: First, Section 1108.2.9, is coordinates with the ADA by clarifying that the amount of area allowed not to be on an accessible route is a 25% of the total area, not potentially 25% of the area with an accessible route, and that the amount of area used for calculation is limited to areas for dining and drinking regardless of whether people sit or stand while drinking or dining. Remaining area of a restaurant that is not part of the drinking or dining area should not be used to determine the allowable area for drinking or dining that is not on an accessible route. Second, the proposed language focuses on the requirement for mezzanines rather than confusing it with requirements for stories and eliminates the unenforceable "amenities". This term is not used in the ADA and should not be included in the IBC.

In Section 1109.8, performing areas and speaker platforms are not limited to Group A occupancies and the ADA does not limit it to assembly occupancies. This deletion is needed to coordinate with the ADA.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E195-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1108.2.9-E-BALDASSARRA-CTC.docx

E196-12
1108.4.3, 1108.4.3.1, 1108.4.3.2, 1109.11, E104.4

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1109.11 Seating at tables, counters and work surfaces. Where seating or standing space at fixed or built-in tables, counters or work surfaces is provided in accessible spaces, at least 5 percent of the seating and standing spaces, but not less than one, shall be accessible. ~~In Group I-3 occupancy visiting areas at least 5 percent, but not less than one, cubicle or counter shall be accessible on both the visitor and detainee sides.~~

Exceptions:

~~1.~~ Check-writing surfaces at check-out aisles not required to comply with Section 1109.11.2 are not required to be accessible.
~~2. In Group I-3 occupancies, the counter or cubicle on the detainee side is not required to be accessible at noncontact visiting areas or in areas not serving accessible holding cells or sleeping units.~~

1109.11.1 Dispersion. Accessible fixed or built-in seating at tables, counters or work surfaces shall be distributed throughout the space or facility containing such elements and located on a level accessed by an accessible route.

~~**1108.4.3**~~ **1109.11.2 Visiting areas.** Visiting areas in Judicial facilities in accordance with Section 1108.4 and Group I-3 shall comply with Sections ~~1108.4.3.1 and 1108.4.3.2~~ 1109.11.2.1 and 1109.11.2.2.

~~**1108.4.3.1**~~ **1109.11.2.1 Cubicles and counters.** At least 5 percent, but ~~no fewer~~ not less than one of the cubicles, shall be accessible on both the visitor and detainee sides. Where counters are provided, at least one shall be accessible on both the visitor and detainee sides.

Exception: This requirement shall not apply to the detainee side of cubicles or counters at noncontact visiting areas not serving Accessible unit holding cells.

~~**1108.4.3.2**~~ **1109.11.2.2 Partitions.** Where solid partitions or security glazing separate visitors from detainees, at least one of each type of cubicle or counter partition shall be accessible.

~~**E104.4 Partitions.** Solid partitions or security glazing that separates visitors from detainees in Group I-3 occupancies shall provide a method to facilitate voice communication. Such methods are permitted to include, but are not limited to, grilles, slats, talk-through baffles, intercoms or telephone handset devices. The method of communication shall be accessible to individuals who use wheelchairs and individuals who have difficulty bending or stooping. Hand-operable communication devices, if provided, shall comply with Section E106.3.~~

Reason: The current requirement for visiting cubicles, by being in Section1108.4.3, is literally only applicable to visiting areas in courthouses. The text is only partially repeated in Section 1109.11. For complete requirement in courthouses and jails, the requirements should be relocate to a general section and add requirements for glazed partitions. Section E104.4 should be deleted since it is redundant with Section 1109.11.2.2 and includes advisory language from ADA 232.5.2. This would be coordinated with ADA 213.4, 232.5 and 232.5.2.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as “areas of study”. Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E196-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1108.4.3-E-BALDASSARRA-CTC.docx

E197 – 12
1109.2, 1109.2.2

Proponent: Dominic Marinelli, representing Accessibility Services/United Spinal Association (dmarinelli@unitedspinal.org)

Revise as follows:

1109.2 Toilet and bathing facilities. Each toilet room and bathing room shall be accessible. Where a floor level is not required to be connected by an accessible route, the only toilet rooms or bathing rooms provided within the facility shall not be located on the inaccessible floor. Except as provided for in Sections 1109.2.2 and 1109.2.3, at ~~At~~ least one of each type of fixture, element, control or dispenser in each accessible toilet room and bathing room shall be accessible.

Exceptions:

1. In toilet rooms or bathing rooms accessed only through a private office, not for common or public use and intended for use by a single occupant, any of the following alternatives are allowed:
   1.1. Doors are permitted to swing into the clear floor space, provided the door swing can be reversed to meet the requirements in ICC A117.1;
   1.2. The height requirements for the water closet in ICC A117.1 are not applicable;
   1.3. Grab bars are not required to be installed in a toilet room, provided that reinforcement has been installed in the walls and located so as to permit the installation of such grab bars; and
   1.4. The requirement for height, knee and toe clearance shall not apply to a lavatory.
2. This section is not applicable to toilet and bathing rooms that serve dwelling units or sleeping units that are not required to be accessible by Section 1107.
3. Where multiple single-user toilet rooms or bathing rooms are clustered at a single location, at least 50 percent but not less than one room for each use at each cluster shall be accessible.
4. Where no more than one urinal is provided in a toilet room or bathing room, the urinal is not required to be accessible.
5. Toilet rooms that are part of critical care or intensive care patient sleeping rooms are not required to be accessible.
6. Where toilet facilities are primarily for children's use, required accessible water closets, toilet compartments and lavatories shall be permitted to comply with children's provision of ICC A117.1.

1109.2.2 Water closet compartment. Where water closet compartments are provided in a toilet room or bathing room, at least ~~one~~ five percent of the total number of compartments shall be wheelchair-accessible ~~compartment~~ compartments ~~shall be provided~~. Where the combined total water closet compartments and urinals provided in a toilet room or bathing room is six or more, at least ~~one~~ five percent of the total number of compartments shall be ambulatory-accessible water closet compartment shall be provided in addition to the wheelchair-accessible compartment.

1109.2.3 Lavatories. Where lavatories are provided, at least 5 percent, but not less than one, shall be accessible. Where the total lavatories provided in a toilet room or bathing facility is six or more, at least one lavatory with enhanced reach ranges shall be provided.

Reason: Code change will provide proportionate accessibility in large toilet rooms necessary to accommodate the increasing number of people with ambulatory disabilities. People who walk with crutches, a cane, a walker, or who have limited balance generally find it easier and safer to use a stall that has parallel grab bars, hence the recommended increase to 5% scoping for ambulatory stalls. Additionally, The University of California, San Francisco Disability Statistics Center estimates that there are 6.1 million users of mobility devices, such as canes, crutches, and walkers and 1.7 million wheelchair or scooter riders. In the US in 2009, among the six types of disabilities identified in the American Community Survey, the highest prevalence rate amongst all age groups was for "Ambulatory Disability," 6.9 percent. (Source: 2009 Disability Status Report - United States | © 2011 Cornell

University). When you only examine the prevalence of ambulatory disabilities for people ages 65-74 (a portion of the population continuing to grow annually) the prevalence rate jumps to 16.5%. Given the fact that we are an aging society and more and more people require the use of either wheelchairs, crutches, canes or other devices –combined with the need for many people with disabilities to use parallel grab bars in stalls, we feel that this code change is necessary and serves the needs of our aging population.

Cost Impact: The code change will increase the cost of construction.

E197-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1109.2.2-E-Marinelli.doc

E198-12
1109.2

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1109.2 Toilet and bathing facilities. Each toilet room and bathing room shall be accessible. Where a floor level is not required to be connected by an accessible route, the only toilet rooms or bathing rooms provided within the facility shall not be located on the inaccessible floor. At least one of each type of fixture, element, control or dispenser in each accessible toilet room and bathing room shall be accessible.

Exceptions:

~~1.~~ ~~In~~ toilet rooms or bathing rooms accessed only through a private office, not for common or public use and intended for use by a single occupant, ~~any of the following alternatives are allowed:~~ shall be permitted to comply with the specific exceptions in ICC A117.1.

~~1.1 Doors are permitted to swing into the clear floor space, provided the door swing can be reversed to meet the requirements in ICC A117.1;~~

~~1.2 The height requirements for the water closet in ICC A117.1 are not applicable;~~

~~1.3 Grab bars are not required to be installed in a toilet room, provided that reinforcement has been installed in the walls and located so as to permit the installation of such grab bars; and~~

~~1.4 The requirement for height, knee and toe clearance shall not apply to a lavatory.~~

2. This section is not applicable to toilet and bathing rooms that serve dwelling units or sleeping units that are not required to be accessible by Section 1107.
3. Where multiple single-user toilet rooms or bathing rooms are clustered at a single location, at least 50 percent but not less than one room for each use at each cluster shall be accessible.
4. Where no more than one urinal is provided in a toilet room or bathing room, the urinal is not required to be *accessible*.
5. Toilet rooms that are part of critical care or intensive care patient sleeping rooms are not required to be *accessible*.
6. Where toilet facilities are primarily for children's use, required *accessible* water closets, toilet compartments and lavatories shall be permitted to comply with children's provision of ICC A117.1.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

The intent of this proposal is to delete this allowance because it is a technical item addressed in ICC A117.1. This exception would be consistent with Title I modifications for employee work areas and the exemptions under 2010 ADA 203.9 and IBC 1103.2.3. Permitted by ADA/ABA as follows:

For text in ADA/ABA:
1.1. – 603.2.3 Exp.1
1.2. - 604.4 Exp 1
1.3. - 604.5 Exp 1
1.4. - 606.2 Exp 2

For text in ICC:
1.1 – 603.2.2 Exp. 1
1.2 - 604.4 Exp
1.3 - 604.5 Exp 1
1.4 – 606.2 Exp. 2

Cost Impact: None

E198-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1109.2-E-BALDASSARRA-CTC.docx

E199-12
1109.2

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

Revise as follows:

1109.2 Toilet and bathing facilities. Each toilet room and bathing room shall be *accessible*. Where a floor level is not required to be connected by an *accessible route*, the only toilet rooms or bathing rooms provided within the facility shall not be located on the inaccessible floor. At least one of each type of fixture, element, control or dispenser in each *accessible* toilet room and bathing room shall be *accessible*.

Exceptions:

1. In toilet rooms or bathing rooms accessed only through a private office, not for *common* or *public use* and intended for use by a single occupant, any of the following alternatives are allowed:
   - 1.1 Doors are permitted to swing into the clear floor space, provided the door swing can be reversed to meet the requirements in ICC A117.1;
   - 1.2. The height requirements for the water closet in ICC A117.1 are not applicable;
   - 1.3. Grab bars are not required to be installed in a toilet room, provided that reinforcement has been installed in the walls and located so as to permit the installation of such grab bars; and
   - 1.4. The requirement for height, knee and toe clearance shall not apply to a lavatory.
2. This section is not applicable to toilet and bathing rooms that serve *dwelling units* or *sleeping unit*s that are not required to be *accessible* by Section 1107.
3. Where multiple single-user toilet rooms or bathing rooms are clustered at a single location, at least 50 percent but not less than one room for each use at each cluster shall be *accessible*.
4. Where no more than one urinal is provided in a toilet room or bathing room, the urinal is not required to be *accessible*.
5. Toilet rooms <u>or bathing rooms</u> that are part of critical care or intensive care patient sleeping rooms <u>serving Accessible units</u> are not required to be *accessible*.
6. <u>Toilet rooms or bathing rooms that serve an Accessible sleeping unit designed for a bariatric patient are not required to comply with the toilet room and bathing room requirement in ICC A117.1</u>.
7. Where toilet facilities are primarily for children's use, required *accessible* water closets, toilet compartments and lavatories shall be permitted to comply with children's provision of ICC A117.1.

Reason: The intent of the new exception 6 is to address rooms specifically designed for bariatric patients. This issue is not addressed in new ADA requirements. The physical size of bariatric patients would not allow for water closets to be located with the center line 16" to 18" from the wall. In addition, if a nurse needs to get next to a patient to offer assistance in rising or sitting down, there is no space between the toilet and the wall. There is also a problem with the size of 36" x 36" for transfer showers. Designing for bariatric patients will result in toilet rooms and bathing rooms that are accessible for these patients, just not bathrooms that are accessible in accordance with ICC A117.1.

While Exception 2 would exempt the toilet rooms in the 90% of the hospital rooms not required to be accessible, the additional language in Exception 5 would reinforce that intent.

Providing the Accessible units in other areas of the hospital is no longer an option. The Department of Justice regulations state that the Accessible rooms must be distributed by type of medical specialty provided in the hospital.

> **DOJ regulations 35.151 (h) and 36.406 (g) Medical care facilities.** Medical care facilities that are subject to this section shall comply with the provisions of the 2010 Standards applicable to medical care facilities, including, but not limited to, sections 223 and 805. In addition, medical care facilities that do not specialize in the treatment of conditions that affect mobility shall disperse the accessible patient bedrooms required by section 223.2.1 of the 2010 Standards in a manner that is proportionate by type of medical specialty.

This proposal is submitted by the ICC Ad Hoc Committee on Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives.

The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx.

Cost Impact: None

E199-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1109.2-E-WILLIAMS-ADHOC.doc

E200-12/13
1109.2.3

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1109.2.3 Lavatories. Where lavatories are provided, at least 5 percent, but not less than one, shall be accessible. Where an accessible lavatory is located within the accessible water closet compartment that lavatory shall not be the only accessible lavatory in the multi-compartment toilet room. Where the total lavatories provided in a toilet room or bathing facility is six or more, at least one lavatory with enhanced reach ranges shall be provided.

Reason: Accessible lavatories must be available to all users of the toilet room any time the room is open. If the only accessible lavatory is within the accessible stall, others in the bathroom would not have access to that lavatory within the stall when the stall was in use. To prevent this, an additional accessible lavatory within the room should still be available for all users. It is not the intent of this section to prohibit someone from providing an accessible lavatory within an accessible stall, only that it not be the only one. This would be coordinated with ADA 213.3.4.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E200-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1109.2.3-E-BALDASSARRA-CTC.docx

E201 – 12
1109.5.1 (IPC [B] 410.2)

Proponent: Lee J. Kranz, City of Bellevue, Washington, representing Washington Association of Building Officials Technical Code Development Committee (lkranz@bellevuewa.gov)

Revise as follows:

1109.5.1 Minimum Number. No fewer than two drinking fountains shall be provided. One drinking fountain shall comply with the requirements for people who use a wheel-chair and one drinking fountain shall comply with the requirements for standing persons.

Exceptions:

1. A single drinking fountain <u>with two separate spouts</u> that comply with the requirements for people who use a wheelchair and standing persons shall be permitted to be substituted for two separate drinking fountains.
2. Where drinking fountains are primarily for children's use, drinking fountains for people using wheelchairs shall be permitted to comply with the children's provisions in ICC A117.1 and drinking fountains for standing children shall be permitted to provide the spout at 30 inches (762 mm) minimum above the floor.

IPC [B] 410.2 Minimum number. Where drinking fountains are required, not fewer than two drinking fountains shall be provided. One drinking fountain shall comply with the requirements for people who use a wheelchair and one drinking fountain shall comply with the requirements for standing persons.

Exception: A single drinking fountain <u>with two separate spouts</u> that complies with the requirements for people who use a wheelchair and standing persons shall be permitted to be substituted for two separate drinking fountains.

Reason: The current language is not specific enough. It isn't clear that for the single drinking fountain, two separate spouts are required to meet the needs of the people in the wheelchairs and the standing people. The proposed verbiage clarifies this.

Cost Impact: The code change proposal will not increase the cost of construction.

E201-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1109.5.1-E-KRANZ

E202-12/13
1007.5 (IFC [B] 1007.5), 1109.8

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1109.8 Lifts. Platform (wheelchair) lifts are permitted to be a part of a required *accessible route* in new construction where indicated in Items 1 through 10. Platform (wheelchair) lifts shall be installed in accordance with ASME A18.1.

1. An *accessible route* to a performing area and speaker platforms in Group A occupancies.
2. An *accessible route* to *wheelchair spaces* required to comply with the *wheelchair space* dispersion requirements of Sections 1108.2.2 through 1108.2.6.
3. An *accessible route* to spaces that are not open to the general public with an *occupant load* of not more than five.
4. An *accessible route* within a *dwelling* or *sleeping unit* .
5. ~~An *accessible route* to wheelchair seating spaces located in outdoor dining terraces in Group A-5 occupancies where the *means of egress* from the dining terraces to a *public way* are open to the outdoors~~

5~~6.~~ An *accessible route* to jury boxes and witness stands; raised courtroom stations including judges' benches, clerks' stations, bailiffs' stations, deputy clerks' stations and court reporters' stations; and to depressed areas such as the well of the court.

6~~7.~~ An *accessible route* to load and unload areas serving amusement rides.

7~~8.~~ An *accessible route* to play components or soft contained play structures.

8~~9.~~ An *accessible route* to team or player seating areas serving areas of sport activity.

9~~10~~.An *accessible route* where existing exterior *site* constraints make use of a ramp or elevator infeasible.

1007.5 (IFC [B] 1007.5) Platform lifts. Platform (wheelchair) lifts shall not serve as part of an *accessible means of egress*, except where allowed as part of a required *accessible route* in Section 1109.7, Items 1 through 8 ~~9~~. Standby power shall be provided in accordance with Chapter 27 for platform lifts permitted to serve as part of a *means of egress*.

Reason: Section 1108.2.9 allows at least 25% of a dining area to be on an accessible route regardless of whether it is interior or exterior. Exception #5 only allows a lift to be used for outdoor dining areas. Providing 25% of an outdoor dining area on an accessible route is no more challenging than providing 25% of an indoor dining area. This exception was first included in the code when there was no exception for tiered dining in a sports facility. It is no longer needed and should be deleted for greater coordination with the ADA. The change to Section 1007.5 is correlative only.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E202-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1109.8-E-BALDASSARRA-CTC.docx

E203 – 12
1109.10(New), E105.4

Proponent: Cheryl Kent, U.S. Department of Housing and Urban Development (cheryl.d.kent@hud.gov)

Add a new section:

1109.10 Mail receptacles. Where provided, mail receptacles shall be accessible in accordance with Sections 1109.10.1 or 1109.10.2.

1109.10.1 Dwelling units and sleeping units. Where mail receptacles are provided for Accessible, Type A or Type B dwelling and sleeping units, accessible mail receptacles shall be provided in accordance with 1109.10.1.1 or 1109.10.1.2.

1109.10.1.1 Centralized mail receptacles. Where each individual mail compartment of a centralized mail receptacle is assigned to a specific dwelling unit or sleeping unit, the individual mail compartments shall comply with 1109.10.1.1.1 or 1109.10.1.1.2.

1109.10.1.1.1 Buildings without an elevator. In a structure without an elevator, all individual mail compartments assigned to Accessible Units, Type A Units and Type B Units in each location shall be accessible.

1109.10.1.1.2 Buildings with an elevator. In a structure with an elevator, fifty percent of all individual mail compartments in each location shall be accessible. Individual mail compartments assigned to Accessible and Type A units shall be included in the accessible mailboxes. In addition to the individual mail compartments assigned to dwelling or sleeping units, an additional number of individual mail compartments that is equal to ten percent of the total number of dwelling units and sleeping units, but not less than one, at each location shall be accessible.

1109.10.1.1.3 Parcel lockers. All parcel lockers of centralized mail receptacles shall be accessible.

1109.10.1.2 Individual house-mounted and curbside mail receptacles. Where an individual house-mounted or curbside mail receptacle serves a dwelling unit or sleeping unit that is required to be an Accessible unit, Type A unit or Type B unit, the mail receptacle shall be accessible.

1109.10.2 Other occupancies. Where mail receptacles are provided in occupancies not falling within the purview of Section 1109.10.1, at least 5 percent, but not less than one, of each type in each location, shall be accessible.

(Renumber subsequent sections)

Delete without substitution:

~~**E105.4 Mailboxes.** Where mailboxes are provided in an interior location, at least 5 percent, but not less than one, of each type shall comply with ICC A117.1. In residential and institutional facilities, where mailboxes are provided for each dwelling unit or sleeping unit, mailboxes complying with ICC A117.1 shall be provided for each unit required to be an Accessible unit.~~

Reason: This proposed change is intended to specifically address accessibility requirements for mailboxes that are provided for buildings that are covered by the Fair Housing Act's (FHAct) accessible design and construction requirements and HUD's Fair Housing Accessibility Guidelines (HUD's Guidelines). Under the IBC, dwelling units and sleeping units that are covered by the FHAct and HUD's Guidelines are known as Type B Dwelling Units, so the focus of the proposal is on Type B Units; at the same time however, this proposal also will easily include Accessible Units and Type A units.

As background, it came to HUD's attention that Section E105.4 is being interpreted as applying to mailboxes serving Type B dwelling units. This was not HUD's understanding of the IBC, rather, we understood that Section 1107.3 covered mailboxes as well as all other types of public and common use facilities serving Type B dwelling units, and that absent specific scoping requirements to scope less than 100% of individual mailboxes, that all mailboxes were required to be accessible consistent with HUD's position in

its Guidelines, which also does not scope less than 100% of mailboxes serving covered dwelling units. The above language will resolve this misunderstanding by striking the language in Appendix E and adding the new language outlined above.

HUD is also aware that HUD's position on mailboxes provided at FHAct covered buildings and current U.S. Postal Service regulations are not in harmony. HUD and U.S.P.S. held a number of discussions and meetings but are not in agreement on a resolution. Nevertheless, HUD recognizes that a 100% scoping requirement for mailboxes in hi-rise elevator buildings, coupled with situations where wall space may be limited, poses challenges for designers and builders in meeting the FHAct requirements as well as those in the IBC and ICC A117.1 for accessible reach ranges. Therefore, we recognize in this proposal that up to 50% of Type A or B units in a building with one or more elevators may not be served by an accessible mailbox. For this reason, this proposal relies on the provision of an additional number of unassigned mailboxes within the accessible reach range to be available, at the time of first occupancy, to serve persons with disabilities who may reside in these units and who may need an accessible mailbox.

Through this code change proposal, we are proposing a resolution that supports our on-going desire to promote consistency between the accessibility requirements in the FHAct and the IBC. In addition, HUD believes this proposal will resolve the conflict in a manner that is consistent with HUD's efforts to move toward more widely accepted accessible reach ranges that are in the more recent editions of the ICC A117.1 standard, as well as in recent government standards for the ADA. In this regard, although HUD's Guidelines use the 1986 edition of ICC A117.1, our proposal is in keeping with several of the more recent editions of IBC and ICC A117.1 that HUD has recognized as safe harbors for compliance under the FHAct, and which use the 48-inch maximum reach range for the high reach. Consequently, we are not recommending changes to the ICC A117.1 as part of this proposal, nor do we intend to do so.

We would like to ensure that architects and builders involved in designing and constructing buildings that are covered by the Fair Housing Act provide for accessibility of mailboxes consistent with HUD's regulations and Guidelines. Developers who deviate from these standards by providing mailboxes at higher reach ranges have been subject to enforcement proceedings brought by HUD as well as litigation brought by the Department of Justice. The Department of Justice has entered into a number of consent decrees which have required the developer to change the height of mailboxes serving covered multifamily dwellings. We believe this change is needed to ensure that the IBC is consistent with the Fair Housing Act and HUD's regulations and Guidelines, and to avoid unnecessary litigation with respect to mailboxes serving Type B dwelling units.

Cost Impact: There should be no significant cost impact since the IBC currently contains text at Section 1107.3 that would apply to mailboxes, like any other public and common use area, and again, absent scoping requirements, should have already been requiring 100% accessibility of mailboxes serving Type B dwelling units. However, by adding this new text to address mailboxes specifically, rather than just generally in Section 1107.3, the IBC will be assuring consistency with the Fair Housing Act, HUD's regulations and the Guidelines.

E203-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1109.16-E-Kent.doc

E204-12/13
1109.12.2

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1109.12.2 Check-out aisles. Where check-out aisles are provided, accessible check-out aisles shall be provided in accordance with Table 1109.12.2. Where check-out aisles serve different functions, ~~at least one accessible check-out aisle shall be provided for each function. Where checkout aisles serve different functions~~, accessible check-out aisles shall be provided in accordance with Table 1109.12.2 for each function. Where check-out aisles are dispersed throughout the building or facility, accessible check-out aisles shall also be dispersed. Traffic control devices, security devices and turnstiles located in accessible check-out aisles or lanes shall be accessible.

> **Exception:** Where the public use area is under 5000 square feet (465 m^2) no more than one accessible check-out aisle shall be required.

Reason: Two sentences are combined for clarity and coordination with ADA 227.2. The exception is permitted in ADA 227.2. This allowance seems reasonable for small spaces.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E204-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1109.12.2-E-BALDASSARRA-CTC.docx

E205-12/13
1109.13

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1109.13 Controls, operating mechanisms and hardware. Controls, operating mechanisms and hardware intended for operation by the occupant, including switches that control lighting and ventilation and electrical convenience outlets, in accessible spaces, along accessible routes or as parts of accessible elements shall be accessible.

1. through 6. *(No change)*
7. Access doors or gates in barrier walls and fences protecting pools, spas and hot tubs shall be permitted to ~~have operable parts of the release of latch on self-latching devices at 54 inches (1370 mm) maximum and 48 inches minimum above the finished floor or ground, provided the self-latching devices are not also self-locking devices, operated by means of a key, electronic opener, or integral combination lock.~~ comply with Section 1008.1.9.2.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

The purpose of this proposal is to delete redundant language in order to maintain consistent requirements over time between Section 1109.13 and 1008.1.9.2. This exception is in ADA/ABA 404.2.7 Doors and Gates Hardware, Exp. 2. The exception is allowed as a safety concern with children and pool access. IBC Section 1008.1.9.2 reads as follows:

1008.1.9.2 Hardware height. Door handles, pulls, latches, locks and other operating devices shall be installed 34 inches (864 mm) minimum and 48 inches (1219 mm) maximum above the finished floor. Locks used only for security purposes and not used for normal operation are permitted at any height.

> **Exception:** Access doors or gates in barrier walls and fences protecting pools, spas and hot tubs shall be permitted to have operable parts of the release of latch on self-latching devices at 54 inches (1370 mm) maximum above the finished floor or ground, provided the self-latching devices are not also self-locking devices operated by means of a key, electronic opener or integral combination lock.

Cost Impact: None

E205-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1109.13-E-BALDASSARRA-CTC.docx

E206-12
1109.13.1

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Delete without substitution:

~~**1109.13.1 Operable window.** Where operable windows are provided in rooms that are required to be accessible in accordance with Sections 1107.5.1.1, 1107.5.2.1, 1107.5.3.1, 1107.5.4, 1107.6.1.1, 1107.6.2.1.1, 1107.6.2.2.1 and 1107.6.4.1, at least one window in each room shall be accessible and each required operable window shall be accessible.~~

Reason: This list is a reference for Accessible units and Type A units. Windows within dwelling units and sleeping units are addressed in ICC A117.1, therefore they are not needed here. The ADA/ABA 229.1 has some requirements for operable windows, but has a series of exceptions, including one for residential uses.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E206-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1109.13.1-E-BALDASSARRA-CTC.docx

E207 – 12
1109.15 (New), E105.3

Proponent: Wesley Walters, Clark County Development Services, representing self (hww@clarkcountynv.gov)

Add new text as follows:

1109.15 Gaming machines and gaming tables. Where provided, two percent, but not less than one of each type of gaming tables provided shall be accessible and provided with a front approach. Where provided, two percent of gaming machines provided shall be accessible and provided with a front approach. Accessible gaming machines shall be distributed throughout the different types of gaming machines provided.

Revise as follows:

E105.3 Depositories, vending machines, change machines and similar equipment. Where provided, at least one of each type of depository, vending machine, change machine and similar equipment shall be accessible. Where provided, two percent of gaming machines provided shall be accessible and provided with a front approach. Accessible gaming machines shall be distributed throughout the different types of gaming machines provided.

Exception: Drive-up-only depositories are not required to comply with this section.

Reason: Gaming machines and tables are now found nation wide. All people need adequate access to these services/ games. Side approach access is not practical or comfortable for extended playing time. Front access allows integration with other players for equal play time and communication. When gaming tables are provide (i.e., black-jack, roulette, craps, poker), at least one of each type should be accessible. With gaming machines, there may be many different games and amounts within one facility. With so many options, distribution throughout the types should provide players with a variety of options. Gaming machines should be in the code and Appendix E since gaming tables can be mostly permanent, or just brought in like a vending machine.

Cost Impact: The code change proposal will not increase the cost of construction

E207-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1109.16 (NEW)-E-WALTERS

E208-12
1104.2, 1104.3, 1108.2.2.4, 1109.15, 1110 (New)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows

SECTION 1110
RECREATIONAL FACILITIES

1110.1 ~~1109.15~~ General ~~Recreational and sports facilities~~. Recreational ~~and sports~~ facilities shall be provided with accessible features in accordance with Sections 1110.2 ~~1109.15.1~~ through 1110.4 ~~1109.15.4~~.

1110.2 Facilities serving Group R-2, R-3 and R-4 occupancies. Recreational facilities that serve Group R-2, R-3 and Group R-4 shall comply with Section 1110.2.1 through 1110.2.3 as applicable.

1110.2.1 Facilities serving Accessible units. In Group R-2 and R-4 occupancies where recreational facilities serve Accessible units, every recreational facility of each type serving Accessible units shall be accessible.

1110.2.2 ~~1109.15.1~~ Facilities serving Type A and Type B units in a single building. In Group R-2, ~~and~~ R-3 and R-4 occupancies where recreational facilities ~~are provided serving~~ serve a single building containing Type A units or Type B units, 25 percent, but not less than one, of each type of recreational facility shall be accessible. Every recreational facility of each type on a site shall be considered to determine the total number of each type that is required to be accessible.

1110.2.3 ~~1109.15.2~~ Facilities serving Type A and Type B units in multiple buildings. In Group R-2, ~~and~~ R-3 and R-4 occupancies on a single site where multiple buildings containing Type A units or Type B units are served by recreational facilities, 25 percent, but not less than one, of each type of recreational facility serving each building shall be accessible. The total number of each type of recreational facility that is required to be accessible shall be determined by considering every recreational facility of each type serving each building on the site.

1110.3 ~~1109.15.3~~ Other occupancies. All recreational facilities not falling within the purview of Section 1110.2 ~~1109.15.1 or 1109.15.2~~ shall be accessible.

1110.4 ~~1109.15.4~~ Recreational ~~and sports~~ facilities ~~exceptions~~. Recreational ~~and sports~~ facilities shall be ~~required to be~~ accessible ~~shall be exempt from this chapter to~~ and shall be on an accessible route to the extent specified in this section.

1110.4.1 ~~1108.2.2.4~~ Team or player seating. At least one wheelchair space shall be provided in team or player seating areas serving areas of sport activity.

> **Exception:** Wheelchair spaces shall not be required in team or player seating areas serving bowling lanes that are not required to be ~~located on an~~ accessible ~~route~~ in accordance with Section ~~1109.15.4.1~~ 1110.4.2.

1110.4.2 ~~1109.15.4.1~~ Bowling lanes. An accessible route shall be provided to at least 5 percent, but no less than one, of each type of bowling lane.

1110.4.3 ~~1109.15.4.2~~ Court sports. In court sports, at least one accessible route shall directly connect both sides of the court.

1110.4.4 ~~**1109.15.4.3**~~ **Raised boxing or wrestling rings.** Raised boxing or wrestling rings are not required to be accessible or to be on an accessible route.

1110.4.5 ~~**1109.15.4.4**~~ **Raised refereeing, judging and scoring areas.** Raised structures used solely for refereeing, judging or scoring a sport are not required to be accessible or to be on an accessible route.

1110.4.6 ~~**1109.15.4.5**~~ **Raised diving boards and diving platforms.** Raised diving boards and diving platforms are not required to be accessible or to be on an accessible route.

1104.2 Within a site. At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements and accessible spaces that are on the same site.

Exceptions:

1. An accessible route is not required between accessible buildings, accessible facilities, accessible elements and accessible spaces that have, as the only means of access between them, a vehicular way not providing for pedestrian access.
2. An accessible route to recreational facilities shall only be required to the extent specified in Section 1110.

1104.3 Connected spaces. When a building or portion of a building is required to be accessible, an accessible route shall be provided to each portion of the building, to accessible building entrances connecting accessible pedestrian walkways and the public way.

Exceptions:

1. In assembly areas with fixed seating, an accessible route shall not be required to serve levels where wheelchair spaces are not provided.
2. In Group I-2 facilities, doors to sleeping units shall be exempted from the requirements for maneuvering clearance at the room side provided the door is a minimum of 44 inches (1118 mm) in width.
3. An accessible route to recreational facilities shall only be required to the extent specified in Section 1110.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

This proposal is part of a coordination effort with the 2010 ADA Standard for Accessible Design and the new technical provisions for recreational facilities found in 2009 ICC A117.1 Chapter 11. This overall proposal for recreational facilities has been divided into parts so that the membership can look at each type of recreational facilities on its own merit. The overall intent is to provide access to recreational facilities so that persons with mobility impairments can participate to the best of their ability. The requirements are not intended to change any essential aspects of that recreational activity.

The intent of this proposal is to move recreational scoping currently in the code to a separate section, Section 1110, Recreational Facilities, instead of being a part of Section 1109, Other Features and Facilities.

1104.2 & 1104.3 - The exceptions for accessible routes in Section 1104.2 and 1104.3 is correlative.

1110.2 through 1110.2.3 - When Group R-2 facilities, such as dormitory buildings, have Accessible units, all recreational facilities provided for residents in the dormitory must be accessible. This is consistent with 2010 ADA. When Group R-2 facilities (with Type A and Type B units), such as apartments and condominiums, have recreational facilities provided for residents, the requirement for 25% of each type is consistent with Fair Housing requirements.

1110.3 – Recreational facilities on their own, or associated with other occupancies are required to be accessible.

1110.4 through 11104.4.6 – the existing recreational provisions in the code are clarified for when they must be accessible, and when an accessible route is required. Please note that the allowances for diving boards is expanded in the proposal dealing with swimming pools.

The following is how this section would look if all proposals were approved. The order of the provisions from Section 1110.4.6 through 1110.4.14 is correlated with the order of the specific technical provisions found in ICC A117.1 and 2010 ADA.

Revise as follows

202 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in the code, have the meanings shown herein:

AREA OF SPORT ACTIVITY. That portion of an indoor or outdoor space, where the play or practice of a sport occurs.

1104.2 Within a site. At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements and accessible spaces that are on the same site.

Exceptions:

1. An accessible route is not required between accessible buildings, accessible facilities, accessible elements and accessible spaces that have, as the only means of access between them, a vehicular way not providing for pedestrian access.
2. An accessible route to recreational facilities shall only be required to the extent specified in Section 1110

1104.3 Connected spaces. When a building or portion of a building is required to be accessible, an accessible route shall be provided to each portion of the building, to accessible building entrances connecting accessible pedestrian walkways and the public way.

Exceptions:

1. In assembly areas with fixed seating, an accessible route shall not be required to serve levels where wheelchair spaces are not provided.
2. In Group I-2 facilities, doors to sleeping units shall be exempted from the requirements for maneuvering clearance at the room side provided the door is a minimum of 44 inches (1118 mm) in width.
3. An accessible route to recreational facilities shall only be required to the extent specified in Section 1110.

1109.7 Lifts. Platform (wheelchair) lifts are permitted to be a part of a required accessible route in new construction where indicated in Items 1 through ~~10~~ 11. Platform (wheelchair) lifts shall be installed in accordance with ASME A18.1.

1. An accessible route to a performing area and speaker platforms in Group A occupancies.
2. An accessible route to wheelchair spaces required to comply with the wheelchair space dispersion requirements of Sections 1108.2.2 through 1108.2.6.
3. An accessible route to spaces that are not open to the general public with an occupant load of not more than five.
4. An accessible route within a dwelling or sleeping unit.
5. An accessible route to wheelchair seating spaces located in outdoor dining terraces in Group A-5 occupancies where the means of egress from the dining terraces to a public way are open to the outdoors.
6. An accessible route to jury boxes and witness stands; raised courtroom stations including judges' benches, clerks' stations, bailiffs' stations, deputy clerks' stations and court reporters' stations; and to depressed areas such as the well of the court.
7. An accessible route to load and unload areas serving amusement rides.
8. An accessible route to play components or soft contained play structures.
9. An accessible route to team or player seating areas serving areas of sport activity.
10. An accessible route instead of gangways serving recreational boating facilities and fishing piers and platforms.
11. An accessible route where existing exterior site constraints make use of a ramp or elevator infeasible.

SECTION 1110
RECREATIONAL FACILITIES

1110.1 ~~1109.15~~ General ~~Recreational and sports facilities.~~ Recreational ~~and sports~~ facilities shall be provided with accessible features in accordance with Sections 1110.2 ~~1109.15.1~~ through 1110.4 ~~1109.15.4~~.

1110.2 Facilities serving Group R-2, R-3 and R-4 occupancies. Recreational facilities that serve Group R-2, R-3 and Group R-4 shall comply with Section 1110.2.1 through 1110.2.3 as applicable.

1110.2.1 Facilities serving Accessible units. In Group R-2 and R-4 occupancies where recreational facilities serve Accessible units, every recreational facility of each type serving Accessible units shall be accessible.

1110.2.2 ~~1109.15.1~~ Facilities serving Type A and Type B units in a single building. In Group R-2, ~~and~~ R-3 and R-4 occupancies where recreational facilities ~~are provided serving~~ serve a single building containing Type A units or Type B units, 25 percent, but not less than one, of each type of recreational facility shall be accessible. Every recreational facility of each type on a site shall be considered to determine the total number of each type that is required to be accessible.

1110.2.3 ~~1109.15.2~~ Facilities serving Type A and Type B units in multiple buildings. In Group R-2, ~~and~~ R-3 and R-4 occupancies on a single site where multiple buildings containing Type A units or Type B units are served by recreational facilities, 25 percent, but not less than one, of each type of recreational facility serving each building shall be accessible. The total number of each type of recreational facility that is required to be accessible shall be determined by considering every recreational facility of each type serving each building on the site.

1110.3 ~~**1109.15.3**~~ **Other occupancies.** All recreational facilities not falling within the purview of Section 1110.2 ~~1109.15.1 or 1109.15.2~~ shall be accessible ~~be accessible~~.

1110.4 ~~**1109.15.4**~~ **Recreational** ~~**and sports**~~ **facilities** ~~**exceptions.**~~ Recreational ~~and sports~~ facilities shall be ~~required to be~~ accessible ~~shall be exempt from this chapter to~~ and shall be on an accessible route to the extent specified in this section.

1110.4.1 Areas of sports activity. Each area of sport activity shall be on an accessible route and shall not be required to be accessible except as provided for in Section 1110.4.2 through 1110.4.15.

1110.4.2 ~~**1108.2.2.4**~~ **Team or player seating.** At least one wheelchair space shall be provided in team or player seating areas serving areas of sport activity.

> **Exception:** Wheelchair spaces shall not be required in team or player seating areas serving bowling lanes that are not required to be ~~located on an~~ accessible ~~route~~ in accordance with Section ~~1109.15.4.1~~ 1110.4.3.

1110.4.3 ~~**1109.15.4.1**~~ **Bowling lanes.** An accessible route shall be provided to at least 5 percent, but no less than one, of each type of bowling lane.

1110.4.4 ~~**1109.15.4.2**~~ **Court sports.** In court sports, at least one accessible route shall directly connect both sides of the court.

1110.4.5 ~~**1109.15.4.3**~~ **Raised boxing or wrestling rings.** Raised boxing or wrestling rings are not required to be accessible or to be on an accessible route.

1110.4.6 ~~**1109.15.4.4**~~ **Raised refereeing, judging and scoring areas.** Raised structures used solely for refereeing, judging or scoring a sport are not required to be accessible or to be on an accessible route.

1110.4.7 Animal Containment Areas. Animal containment areas that are not within public use areas are not required to be accessible or to be on an accessible route.

1110.4.8 Amusement rides. Amusement rides that moves persons through a fixed course within a defined area shall comply with Section 1110.4.8.1 through 1110.4.8.3.

> **Exception:** Mobile or portable amusement rides shall not be required to be accessible.

1110.4.8.1 Load and unload areas. Load and unload areas serving amusement rides shall be accessible and be on an accessible route. Where load and unload areas have more than one loading or unloading position, at least one loading and unloading position shall be on an accessible route.

1110.4.8.1.1 Wheelchair spaces, ride seats designed for transfer, and transfer devices. Where amusement rides are in the load and unload position, the position serving a wheelchair spaces, amusement ride seats designed for transfer and transfer devices shall be on an accessible route.

1110.4.8.2 Minimum number. Amusement rides shall provide at least one wheelchair space, amusement ride seat designed for transfer, or transfer device.

> **Exceptions:**
>
> 1. Amusement rides that are controlled or operated by the rider are not required to comply with this section.
> 2. Amusement rides designed primarily for children, where children are assisted on and off the ride by an adult, are not required to comply with this section.
> 3. Amusement rides that do not provide seats that are built-in or mechanically fastened shall not be required to comply with this section.

1110.4.9 Recreational Boating Facilities. Boat slips required to be accessible by Section 1110.4.9.1 and 1110.4.9.2 and boarding piers at boat launch ramps required to be accessible by Section 1110.4.9.3 shall be on an accessible route.

1110.4.9.1 Boat Slips. Accessible boat slips shall be provided in accordance with Table 1110.4.9.1. All units on the site shall be combined to determine the number of accessible boat slips required. Where the number of boat slips is not identified, each 40 feet (12 m) of boat slip edge provided along the perimeter of the pier shall be counted as one boat slip for the purpose of this section.

> **Exception:** Boat slips not designed for embarking or disembarking are not required to be accessible or be on an accessible route.

TABLE 1110.4.9.1
BOAT SLIPS

Total Number of Boating Slips Provided	Minimum Number of Required Accessible Boating Slips
1 to 25	1
26 to 50	2
51 to 100	3
101 to 150	4
151 to 300	5
301 to 400	6
401 to 500	7
501 to 600	8
601 to 700	9
701 to 800	10
801 to 900	11
901 to 1000	12
1001 and over	12, plus 1 for every 100, or fraction thereof, over 1000

1110.4.9.2 Dispersion. Accessible boat slips shall be dispersed throughout the various types of boat slips provided. Where the minimum number of accessible boat slips has been met, no further dispersion shall be required.

1110.4.9.3 Boarding Piers at Boat Launch Ramps. Where boarding piers are provided at boat launch ramps, at least 5 percent, but no fewer than one, of the boarding piers shall be accessible.

1110.4.10 Exercise Machines and Equipment. At least one of each type of exercise machine and equipment shall be on an accessible route.

1110.4.11 Fishing Piers and Platforms. Fishing piers and platforms shall be accessible and be on an accessible route.

1110.4.12 Miniature golf facilities. Miniature golf facilities shall comply with 1110.4.12.1 through 1110.4.12.3.

1110.4.12.1 Minimum Number. At least 50 percent of holes on miniature golf courses shall be accessible.

1110.4.12.2 Miniature Golf Course Configuration. Miniature golf courses shall be configured so that the accessible holes are consecutive. Miniature golf courses shall provide an accessible route from the last accessible hole to the course entrance or exit without requiring travel through any other holes on the course.
Exception: One break in the sequence of consecutive holes shall be permitted provided that the last hole on the miniature golf course is the last hole in the sequence.

1110.4.12.3 Accessible route. Holes required to comply with 1110.4.11.1, including the start of play, shall be on an accessible route.

1110.4.13 Play Areas. Play areas containing play components designed and constructed for children shall be accessible and be located on an accessible route.

1110.4.14 Swimming pools, wading pools, hot tubs and spas. Swimming pools, wading pools, hot tubs and spas shall be accessible and be on an accessible route.

Exceptions:

1. Pools or a designated section of a pool used as a terminus for a water slide flume shall not be required to provide an accessible means of entry, provided that a portion of the catch pool edge is on an accessible route.
2. Where spas or hot tubs are provided in a cluster, at least 5 percent, but no less than one spa or hot tub in each cluster, shall be accessible and be on an accessible route.

1110.4.14.1 ~~1109.15.4.5~~ Raised diving boards and diving platforms. Raised diving boards and diving platforms are not required to be accessible or to be on an accessible route.

1110.4.14.2 Water Slides. Water slides are not be required to be accessible or to be on an accessible route.

1110.4.15 Shooting Facilities with Firing Positions. Where shooting facilities with firing positions are designed and constructed at a site, at least 5 percent, but no less than one, of each type of firing position shall be accessible and be on an accessible route.

~~1110.3~~ 1111.3 Other signs. Signage indicating special accessibility provisions shall be provided as shown.

1. Each assembly area required to comply with Section 1108.2.7 shall provide a sign notifying patrons of the availability of assistive listening systems.

Exception: Where ticket offices or windows are provided, signs are not required at each assembly area provided that signs are displayed at each ticket office or window informing patrons of the availability of assistive listening systems .

2. At each door to an area of refuge, an exterior area for assisted rescue, an egress stairway, exit passageway and exit discharge, signage shall be provided in accordance with Section 1011.4.
3. At areas of refuge, signage shall be provided in accordance with Section 1007.11.
4. At exterior areas for assisted rescue, signage shall be provided in accordance with Section 1007.11.
5. At two-way communication systems, signage shall be provided in accordance with Section 1007.8.2.
6. Within interior exit stairways and ramps, signage shall be provided in accordance with Section 1022.9.
7. Signs identifying the type of access provided on amusement rides required to be accessible by Section 1110 shall be provided at entries to queues and waiting lines. In addition, where accessible unload areas also serve as accessible load areas, signs indicating the location of the accessible load and unload areas shall be provided at entries to queues and waiting lines. These directional sign characters shall meet the visual character requirements in accordance with ICC A117.1

3411.8 (IEBC [B] 410.8) Scoping for alterations. The provisions of Sections 3411.8.1 through ~~3411.8.14~~ 3411.8.15 shall apply to alterations to existing buildings and facilities.

3411.8.15 (IEBC [B] 410.8.15) Amusement rides. Where the structural or operational characteristics of an amusement ride are altered to the extent that the amusement ride's performance differs from that specified by the manufacturer or the original design, the amusement ride shall comply with requirements for new construction in Section 1110.4.8.

APPENDIX E
SUPPLEMENTARY ACCESSIBILITY REQUIREMENTS

SECTION E106
RECREATIONAL FACILITIES

E106.1 Golf Facilities. Golf facilities shall comply with E106.1.1 through E106.1.4.

E106.1.1 Golf Courses. Golf courses shall comply with E106.1.1.1 through E106.1.1.3.

E106.1.1.1 Teeing Grounds. Where one teeing ground is provided for a hole, the teeing ground shall be designed and constructed so that a golf car can enter and exit the teeing ground. Where two teeing grounds are provided for a hole, the forward teeing ground shall be designed and constructed so that a golf car can enter and exit the teeing ground. Where three or more teeing grounds are provided for a hole, at least two teeing grounds, including the forward teeing ground, shall be designed and constructed so that a golf car can enter and exit each teeing ground.

E106.1.1.2 Putting Greens. Putting greens shall be designed and constructed so that a golf car can enter and exit the putting green.

E106.1.1.3 Weather Shelters. Where provided, weather shelters shall be designed and constructed so that a golf car can enter and exit the weather shelter and shall be accessible.

E106.1.2 Practice Putting Greens, Practice Teeing Grounds, and Teeing Stations at Driving Ranges. At least 5 percent, but no fewer than one, of practice putting greens, practice teeing grounds, and teeing stations at driving ranges shall be designed and constructed so that a golf car can enter and exit.

E106.1.3 Accessible route. At least one accessible route shall connect accessible elements and spaces within the boundary of the golf course. In addition, accessible routes serving golf car rental areas; bag drop areas; course weather shelters complying with Section E106.1.1.3; course toilet rooms; practice putting greens; practice teeing grounds; and teeing stations at driving ranges complying with Section E106.1.2 shall comply with the accessible route requirements for golf courses in ICC A117.1.
Exception: Accessible golf car passages shall be permitted to be used for all or part of accessible routes required by this section.

E106.1.4 Teeing Grounds. When teeing grounds are being altered, teeing grounds shall comply with, Section E106.1.1.1.
Exception: In existing golf courses, the forward teeing ground shall not be required to be one of the teeing grounds on a hole designed and constructed so that a golf car can enter and exit the teeing ground where compliance is not feasible due to terrain.

Part II

Revise as follows:

IEBC 705.1 General. A *facility* that is altered shall comply with the applicable provisions in Sections 705.1.1 through ~~705.1.14~~ 705.1.15, and Chapter 11 of the *International Building Code* unless it is *technically infeasible*. Where compliance with this section is *technically infeasible*, the alteration shall provide access to the maximum extent that is technically feasible. A *facility* that is constructed or altered to be accessible shall be maintained accessible during occupancy.

Exceptions:

1. The altered element or space is not required to be on an accessible route unless required by Section 705.2.
2. Accessible means of egress required by Chapter 10 of the *International Building Code* are not required to be provided in existing *facilities*.
3. Type B dwelling or sleeping units required by Section 1107 of the *International Building Code* are not required to be provided in existing *facilities* undergoing less than a Level 3 *alteration*.
4. The alteration to Type A individually owned dwelling units within a Group R-2 occupancy shall meet the provisions for Type B dwelling units.

IEBC 705.1.15 Amusement rides. Where the structural or operational characteristics of an amusement ride are altered to the extent that the amusement ride's performance differs from that specified by the manufacturer or the original design, the amusement ride shall comply with requirements for new construction in the International Building Code, Section 1110.4.8.

Cost Impact: None – This will be required by the 2010 ADA Standard for Accessible Design.

E208-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1104.2-E-BALDASSARRA-CTC.docx

E209-12
202, 1109.15.4, 1110(New)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

SECTION 1110
RECREATIONAL FACILITIES

1110.4 ~~**1109.15.4**~~ **Recreational** ~~**and sports**~~ **facilities** ~~**exceptions**~~**.** Recreational ~~and sports~~ facilities shall be ~~required to be~~ accessible ~~shall be exempt from this chapter to~~ and shall be on an accessible route to the extent specified in this section.

1110.4.1 Areas of sports activity. Each area of sport activity shall be on an accessible route and shall not be required to be accessible except as provided for in Sections 1110.4.2 through 1110.4.15.

Add new definition as follows:

SECTION 202
DEFINITIONS

AREA OF SPORT ACTIVITY. That portion of an indoor or outdoor space, where the play or practice of a sport occurs.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

This proposal is part of a coordination effort with the 2010 ADA Standard for Accessible Design and the new technical provisions for recreational facilities found in 2009 ICC A117.1 Chapter 11. This overall proposal for recreational facilities has been divided into parts so that the membership can look at each type of recreational facilities on its own merit. The overall intent is to provide access to recreational facilities so that persons with mobility impairments can participate to the best of their ability. The requirements are not intended to change any essential aspects of that recreational activity.

The definition for 'area of sport activity' is correlated with 2010 ADA. Technical guidance provided by the Access Board indicates that "area of sports activity" is a broad term intended to cover a diverse number of indoor and outdoor sports fields and areas. The "area of sports activity" is "that portion of a room or space where the play or practice of a sport occurs." In addition, a safety border is provided around the field. Players may temporarily be in the space between the boundary lines and the safety border when they are pushed out of bounds or momentum carries them forward when receiving a pass. As in football, that space is used as part of the game and is included in the area of sports activity.

The intent is that an accessible route is required to each location where a sports activity takes place, such as to the baseball field, ice rink, tennis court or swimming pool. It is not intended for there to be accessibility requirements into or onto the playing surface unless specifically addressed. For example, an accessible route is required to the baseball field or ice rink, but participation on the field is based on the individual's ability. The baseball field or ice rink itself is not required to be modified. Areas such as tennis courts have to have a route to each side of the court, because playing tennis includes changing sides between sets (this requirement is in current language). Swimming pools are also areas of sports activities. The new provisions in ICC A117.1 will address how to provide access into the water based on the type of pool and options for entry. (There is a companion proposal to provide additional guidance for pools.)

Cost Impact: None – This will be required by the 2010 ADA Standard for Accessible Design.

E209-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

202-E-AREA OF SPORTS ACTIVITY-BALDASSARRA-CTC.docx

E210-12
1109.15.4, 1110 (New)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

SECTION 1110
RECREATIONAL FACILITIES

1110.4 ~~**1109.15.4**~~ **Recreational** ~~**and sports**~~ **facilities** ~~**exceptions**~~**.** Recreational ~~and sports~~ facilities shall be ~~required to be~~ accessible ~~shall be exempt from this chapter to~~ and shall be on an accessible route to the extent specified in this section.

1110.4.7 Animal Containment Areas. Animal containment areas that are not within public use areas are not required to be accessible or to be on an accessible route.

Reason: This proposal is part of a coordination effort with the 2010 ADA Standard for Accessible Design and the new technical provisions for recreational facilities found in 2009 ICC A117.1 Chapter 11. This overall proposal for recreational facilities has been divided into parts so that the membership can look at each type of recreational facilities on its own merit. The overall intent is to provide access to recreational facilities so that persons with mobility impairments can participate to the best of their ability. The requirements are not intended to change any essential aspects of that recreational activity.

Technical guidance provided by the Access Board indicates that "If the public has access to animal containment areas, accessible routes must connect to each animal containment areas. Examples may include petting zoos, petting farms, public pathways for viewing livestock display tents, or other area where public has access to animals. Horse riding arenas would be considered 'areas of sports activity'. Animal containment areas not open to the public are exempt.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None – This will be required by the 2010 ADA Standard for Accessible Design.

E210-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1110#1-E-BALDASSARRA-CTC.docx

E211-12
1109.15.4, 1110 (New), 1110.3, 3411.8.15 (New) [IEBC [B] 410.8.15 (New)]

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

SECTION 1110
RECREATIONAL FACILITIES

1110.4 ~~1109.15.4~~ Recreational ~~and sports~~ facilities ~~exceptions~~. Recreational ~~and sports~~ facilities shall be ~~required to be~~ accessible ~~shall be exempt from this chapter to~~ and shall be on an accessible route to the extent specified in this section.

1110.4.8 Amusement rides. Amusement rides that moves persons through a fixed course within a defined area shall comply with Section 1110.4.8.1 through 1110.4.8.3.

Exception: Mobile or portable amusement rides shall not be required to be accessible.

1110.4.8.1 Load and unload areas. Load and unload areas serving amusement rides shall be accessible and be on an accessible route. Where load and unload areas have more than one loading or unloading position, at least one loading and unloading position shall be on an accessible route.

1110.4.8.1.1 Wheelchair spaces, ride seats designed for transfer, and transfer devices. Where amusement rides are in the load and unload position, the position serving a wheelchair spaces, amusement ride seats designed for transfer and transfer devices shall be on an accessible route.

1110.4.8.2 Minimum number. Amusement rides shall provide at least one wheelchair space, amusement ride seat designed for transfer, or transfer device.

Exceptions:

1. Amusement rides that are controlled or operated by the rider are not required to comply with this section.
2. Amusement rides designed primarily for children, where children are assisted on and off the ride by an adult, are not required to comply with this section.
3. Amusement rides that do not provide seats that are built-in or mechanically fastened shall not be required to comply with this section.

1111.3 ~~1110.3~~ Other signs. Signage indicating special accessibility provisions shall be provided as shown.

1. Each assembly area required to comply with Section 1108.2.7 shall provide a sign notifying patrons of the availability of assistive listening systems.

   Exception: Where ticket offices or windows are provided, signs are not required at each assembly area provided that signs are displayed at each ticket office or window informing patrons of the availability of assistive listening systems .

2. At each door to an *area of refuge*, an exterior area for assisted rescue, an egress *stairway*, *exit passageway* and *exit discharge*, signage shall be provided in accordance with Section 1011.4.
3. At *areas of refuge*, signage shall be provided in accordance with Section 1007.11.
4. At exterior areas for assisted rescue, signage shall be provided in accordance with Section 1007.11.

5. At two-way communication systems, signage shall be provided in accordance with Section 1007.8.2.
6. Within interior exit stairways and ramps, signage shall be provided in accordance with Section 1022.9.
7. Signs identifying the type of access provided on *amusement rides* required to be accessible by Section 1110 shall be provided at entries to queues and waiting lines. In addition, where *accessible* unload areas also serve as *accessible* load areas, signs indicating the location of the *accessible* load and unload areas shall be provided at entries to queues and waiting lines. These directional sign characters shall meet the visual character requirements in accordance with ICC A117.1

3411.8 (IEBC [B] 410.8) Scoping for alterations. The provisions of Sections 3411.8.1 through ~~3411.8.14~~ 3411.8.15 shall apply to *alterations* to existing buildings and facilities.

3411.8.15 (IEBC [B] 410.8.15) Amusement rides. Where the structural or operational characteristics of an amusement ride are altered to the extent that the amusement ride's performance differs from that specified by the manufacturer or the original design, the amusement ride shall comply with requirements for new construction in Section 1110.4.8.

Reason: This proposal is part of a coordination effort with the 2010 ADA Standard for Accessible Design and the new technical provisions for recreational facilities found in 2009 ICC A117.1 Chapter 11. This overall proposal for recreational facilities has been divided into parts so that the membership can look at each type of recreational facilities on its own merit. The overall intent is to provide access to recreational facilities so that persons with mobility impairments can participate to the best of their ability. The requirements are not intended to change any essential aspects of that recreational activity.

This proposal contains scoping provisions for amusement rides. To the extent that amusement rides are subject to the code, they should be accessible and usable by individuals with disabilities. These scoping provisions are flexible permitting latitude in terms of the method of access e.g. transfer seat, roll-on seat or transfer device to lift the rider. Mobile and portable rides are exempted in Section 1110.4.8. Rides without seats, those designed for children who are assisted onto the ride and those rides controlled by the user are also exempted under 1110.4.8.2 from providing wheelchair transfer spaces. Technical criteria can be found in the 2009 edition of the ICC A117.1, Section 1102 and includes accessible routes, load and unload areas, wheelchair spaces on rides, seats for transfer, and transfer devices.

There is a correlative change to IEBC for existing amusement rides.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as “areas of study”. Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None – This will be required by the 2010 ADA Standard for Accessible Design.

E211-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1110#2-E-BALDASSARRA-CTC.docx

E212-12
1109.7, 1109.15.4, 1110 (New)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

SECTION 1110
RECREATIONAL FACILITIES

1110.4 ~~**1109.15.4**~~ **Recreational** ~~**and sports**~~ **facilities** ~~**exceptions**~~**.** Recreational ~~and sports~~ facilities shall be ~~required~~ ~~to be~~ accessible ~~shall be exempt from this chapter to~~ and shall be on an accessible route to the extent specified in this section.

1110.4.9 Recreational Boating Facilities. Boat slips required to be accessible by Section 1110.4.9.1 and 1110.4.9.2 and boarding piers at boat launch ramps required to be accessible by Section 1110.4.9.3 shall be on an accessible route.

1110.4.9.1 Boat Slips. Accessible boat slips shall be provided in accordance with Table 1110.4.9.1. All units on the site shall be combined to determine the number of accessible boat slips required. Where the number of boat slips is not identified, each 40 feet (12 m) of boat slip edge provided along the perimeter of the pier shall be counted as one boat slip for the purpose of this section.

> **Exception:** Boat slips not designed for embarking or disembarking are not required to be accessible or be on an accessible route.

TABLE 1110.4.9.1
BOAT SLIPS

Total Number of Boating Slips Provided	Minimum Number of Required Accessible Boating Slips
1 to 25	1
26 to 50	2
51 to 100	3
101 to 150	4
151 to 300	5
301 to 400	6
401 to 500	7
501 to 600	8
601 to 700	9
701 to 800	10
801 to 900	11
901 to 1000	12
1001 and over	12, plus 1 for every 100, or fraction thereof, over 1000

1110.4.9.2 Dispersion. Accessible boat slips shall be dispersed throughout the various types of boat slips provided. Where the minimum number of accessible boat slips has been met, no further dispersion shall be required.

1110.4.9.3 Boarding Piers at Boat Launch Ramps. Where boarding piers are provided at boat launch ramps, at least 5 percent, but no fewer than one, of the boarding piers shall be accessible.

1110.4.11 Fishing Piers and Platforms. Fishing piers and platforms shall be accessible and be on an accessible route.

1109.7 Lifts. Platform (wheelchair) lifts are permitted to be a part of a required accessible route in new construction where indicated in Items 1 through ~~10~~ 11. Platform (wheelchair) lifts shall be installed in accordance with ASME A18.1.

1. An accessible route to a performing area and speaker platforms in Group A occupancies.
2. An accessible route to wheelchair spaces required to comply with the wheelchair space dispersion requirements of Sections 1108.2.2 through 1108.2.6.
3. An accessible route to spaces that are not open to the general public with an occupant load of not more than five.
4. An accessible route within a dwelling or sleeping unit.
5. An accessible route to wheelchair seating spaces located in outdoor dining terraces in Group A-5 occupancies where the means of egress from the dining terraces to a public way are open to the outdoors.
6. An accessible route to jury boxes and witness stands; raised courtroom stations including judges' benches, clerks' stations, bailiffs' stations, deputy clerks' stations and court reporters' stations; and to depressed areas such as the well of the court.
7. An accessible route to load and unload areas serving amusement rides.
8. An accessible route to play components or soft contained play structures.
9. An accessible route to team or player seating areas serving areas of sport activity.
10. An accessible route instead of gangways serving recreational boating facilities and fishing piers and platforms.
11. An accessible route where existing exterior site constraints make use of a ramp or elevator infeasible.

Reason: This proposal is part of a coordination effort with the 2010 ADA Standard for Accessible Design and the new technical provisions for recreational facilities found in 2009 ICC A117.1 Chapter 11. This overall proposal for recreational facilities has been divided into parts so that the membership can look at each type of recreational facilities on its own merit. The overall intent is to provide access to recreational facilities so that persons with mobility impairments can participate to the best of their ability. The requirements are not intended to change any essential aspects of that recreational activity.

This proposal contains scoping provisions for boating and fishing piers. It is common for boating and fishing piers to be constructed as part of waterfront development that is subject to the building code. Technical criteria can be found in the 2009 edition of the ICC A117.1, Sections 1103 and 1105 and includes accessible routes and clearances for boat docks and accessible routes, railings, edge protection, clear floor space and turning space for fishing piers. If a guard is provided or required, it is not required to be lowered for fishermen with disabilities.

Section 1110.4.9.3 does not require accessibility to the boat launch ramp, but only where a boarding pier is provided adjacent to the boat launch ramp.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None – This will be required by the 2010 ADA Standard for Accessible Design.

E212-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1110#3-E-BALDASSARRA-CTC.doc

E213-12
1109.15.4, 1110 (New)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

SECTION 1110
RECREATIONAL FACILITIES

1110.4 ~~**1109.15.4**~~ **Recreational** ~~**and sports**~~ **facilities** ~~**exceptions.**~~ Recreational ~~and sports~~ facilities shall be ~~required to be~~ accessible ~~shall be exempt from this chapter to~~ and shall be on an accessible route to the extent specified in this section.

1110.4.10 Exercise Machines and Equipment. At least one of each type of exercise machine and equipment shall be on an accessible route.

Reason: This proposal is part of a coordination effort with the 2010 ADA Standard for Accessible Design and the new technical provisions for recreational facilities found in 2009 ICC A117.1 Chapter 11. This overall proposal for recreational facilities has been divided into parts so that the membership can look at each type of recreational facilities on its own merit. The overall intent is to provide access to recreational facilities so that persons with mobility impairments can participate to the best of their ability. The requirements are not intended to change any essential aspects of that recreational activity.

This proposal contains scoping provisions for areas that contain exercise machines and equipment. A preliminary layout is typically supplied as part of the construction drawings, similar to table layouts for restaurants. The technical criteria do not require the equipment and machines to be accessible; they merely require clearances adjacent to the machines so that individuals with a mobility impairment can get to them. Technical criteria for the clear floor space can be found in the 2009 edition of the ICC A117.1, Section 1104.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None – This will be required by the 2010 ADA Standard for Accessible Design.

E213-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1110#7-E-BALDASSARRA-CTC.docx

E214-12
1109.15.4, 1110 (New)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

SECTION 1110
RECREATIONAL FACILITIES

1110.4 ~~1109.15.4~~ Recreational ~~and sports~~ facilities ~~exceptions~~. Recreational ~~and sports~~ facilities shall be ~~required to be~~ accessible ~~shall be exempt from this chapter to~~ and shall be on an accessible route to the extent specified in this section.

1110.4.12 Miniature golf facilities. Miniature golf facilities shall comply with Section 1110.4.12.1 through 1110.4.12.3.

1110.4.12.1 Minimum Number. At least 50 percent of holes on miniature golf courses shall be accessible.

1110.4.12.2 Miniature Golf Course Configuration. Miniature golf courses shall be configured so that the accessible holes are consecutive. Miniature golf courses shall provide an accessible route from the last accessible hole to the course entrance or exit without requiring travel through any other holes on the course.

> **Exception:** One break in the sequence of consecutive holes shall be permitted provided that the last hole on the miniature golf course is the last hole in the sequence.

1110.4.12.3 Accessible route. Holes required to comply with Section 1110.4.12.1, including the start of play, shall be on an accessible route.

Reason: This proposal is part of a coordination effort with the 2010 ADA Standard for Accessible Design and the new technical provisions for recreational facilities found in 2009 ICC A117.1 Chapter 11. This overall proposal for recreational facilities has been divided into parts so that the membership can look at each type of recreational facilities on its own merit. The overall intent is to provide access to recreational facilities so that persons with mobility impairments can participate to the best of their ability. The requirements are not intended to change any essential aspects of that recreational activity.

This proposal contains scoping provisions for miniature golf facilities. Today, miniature golf facilities are likely to be structures comprised of components and materials that are subject to the IBC. To the extent that such facilities are subject to the IBC, they should be accessible to individuals with mobility impairments. Technical criteria can be found in the 2009 edition of the ICC A117.1, Section 1107 and includes accessible routes and criteria for each hole.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None – This will be required by the 2010 ADA Standard for Accessible Design.

E214-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1110#6-E-BALDASSARRA-CTC.docx

E215-12
1109.15.4, 1110 (New)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

SECTION 1110
RECREATIONAL FACILITIES

1110.4 ~~**1109.15.4**~~ **Recreational** ~~**and sports**~~ **facilities** ~~**exceptions.**~~ Recreational ~~and sports~~ facilities shall be ~~required to be~~ accessible ~~shall be exempt from this chapter to~~ and shall be on an accessible route to the extent specified in this section.

1110.4.13 Play Areas. Play areas containing play components designed and constructed for children shall be accessible and be located on an accessible route.

Reason: This proposal is part of a coordination effort with the 2010 ADA Standard for Accessible Design and the new technical provisions for recreational facilities found in 2009 ICC A117.1 Chapter 11. This overall proposal for recreational facilities has been divided into parts so that the membership can look at each type of recreational facilities on its own merit. The overall intent is to provide access to recreational facilities so that persons with mobility impairments can participate to the best of their ability. The requirements are not intended to change any essential aspects of that recreational activity.

This proposal contains scoping provisions for play areas. Currently, Section 402.6.3 addresses "structures intended as children's playgrounds" and Section 105.2 exempts "swings and other playground equipment accessory to detached one- and two-family dwellings" from permits. To the extent that children's play facilities are covered by the IBC, they should be accessible to children with disabilities. These scoping requirements are reasonable and are the result of recommendations from a regulatory negotiation committee the Access Board established for this purpose that included ASTM Public Playground, Soft Contained Play, and Playground Surfacing Systems Committees manufacturers of play equipment, landscape architects, government associations, elementary school associations, and organizations representing people with disabilities. Since the Access Board's guidelines were published in late 2000, manufacturers offer play equipment complying with these scoping and technical criteria. The 2009 edition of the ICC A117.1, Section 1108, contains technical criteria for play areas consistent with the 2010 ADA Standard.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None – This will be required by the 2010 ADA Standard for Accessible Design.

E215-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1110#4-E-BALDASSARRA-CTC.doc

E216-12
1109.15.4, 1109.15.4.5, 1110 (New)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

SECTION 1110
RECREATIONAL FACILITIES

1110.4 ~~1109.15.4~~ Recreational ~~and sports~~ facilities ~~exceptions~~. Recreational ~~and sports~~ facilities shall be ~~required to be~~ accessible ~~shall be exempt from this chapter to~~ and shall be on an accessible route to the extent specified in this section.

1110.4.14 Swimming pools, wading pools, hot tubs and spas. Swimming pools, wading pools, hot tubs and spas shall be accessible and be on an accessible route.

Exceptions:

1. *Catch Pools or a designated section of a pool used as a terminus for a water slide flume* shall not be required to provide an *accessible* means of entry, provided that a portion of the *catch pool* edge is on an *accessible* route.
2. Where spas or hot tubs are provided in a cluster, at least 5 percent, but no less than one spa or hot tub in each cluster, shall be accessible and be on an accessible route.

1110.4.14.1 ~~1109.15.4.5~~ Raised diving boards and diving platforms. Raised diving boards and diving platforms are not required to be accessible or to be on an accessible route.

1110.4.14.2 Water Slides. Water slides are not be required to be accessible or to be on an accessible route.

Reason: This proposal is part of a coordination effort with the 2010 ADA Standard for Accessible Design and the new technical provisions for recreational facilities found in 2009 ICC A117.1 Chapter 11. This overall proposal for recreational facilities has been divided into parts so that the membership can look at each type of recreational facilities on its own merit. The overall intent is to provide access to recreational facilities so that persons with mobility impairments can participate to the best of their ability. The requirements are not intended to change any essential aspects of that recreational activity.

This proposal contains scoping provisions for swimming pools, wading pools, hot tubs and spas. This is especially important that use swimming pools for exercise or rehabilitation. The exceptions for Section 1110.4.14 are exceptions for pools used only be water slides, and a percentage of hot tubs. These exceptions, along with the exceptions for diving boards and water slides are logical, and consistent with ADA. The 2009 edition of the ICC A117.1, Section 1109, contains technical criteria for play areas consistent with the 2010 ADA Standard. Criteria for entry points include options for pool lifts, sloped entries, transfer walls, transfer systems and pool stairs.

The *International Swimming Pool and Spa Code*, Section 307.9, references the IBC for accessibility requirements for pools.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None – This will be required by the 2010 ADA Standard for Accessible Design.

E216-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1110#5-E-BALDASSARRA-CTC.docx

E217-12
1109.15.4, 1110 (New)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

SECTION 1110
RECREATIONAL FACILITIES

1110.4 ~~**1109.15.4**~~ **Recreational** ~~**and sports**~~ **facilities** ~~**exceptions.**~~ Recreational ~~and sports~~ facilities ~~required to be~~ shall be accessible ~~shall be exempt from this chapter to~~ and shall be on an accessible route to the extent specified in this section.

1110.4.15 Shooting Facilities with Firing Positions. Where shooting facilities with firing positions are designed and constructed at a site, at least 5 percent, but no fewer than one, of each type of firing position shall be accessible and be on an accessible route.

Reason: This proposal is part of a coordination effort with the 2010 ADA Standard for Accessible Design and the new technical provisions for recreational facilities found in 2009 ICC A117.1 Chapter 11. This overall proposal for recreational facilities has been divided into parts so that the membership can look at each type of recreational facilities on its own merit. The overall intent is to provide access to recreational facilities so that persons with mobility impairments can participate to the best of their ability. The requirements are not intended to change any essential aspects of that recreational activity.

This proposal contains scoping provisions for shooting facilities where fixed firing positions are provided. Technical criteria can be found in the 2009 edition of the ICC A117.1, Section 1110. Technical criteria for a turning space at the firing position can be found in the 2009 edition of the ICC A117.1, Section 1106.

By types of firing positions, the intent is to address types of weapons, rifle, handgun, bow and arrow; lighted; and covered or not covered.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None – This will be required by the 2010 ADA Standard for Accessible Design.

E217-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1110#8-E-BALDASSARRA-CTC.docx

E218-12
1110.1

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1110.1 Signs. Required accessible elements shall be identified by the International Symbol of Accessibility at the following locations:

1. Accessible parking spaces required by Section 1106.1 except where the total number of parking spaces provided is four or less.
2. In Group I-1, R-2 and R-3 facilities, where parking *spaces* are assigned to specific *dwelling units* or *sleeping units*, identification of *accessible* parking *spaces* shall not be required.

~~2~~3. Accessible passenger loading zones.
~~3~~4. Accessible rooms where multiple single-user toilet or bathing rooms are clustered at a single location.
~~4~~5. Accessible entrances where not all entrances are accessible.
~~5~~6. Accessible check-out aisles where not all aisles are accessible. The sign, where provided, shall be above the check-out aisle in the same location as the checkout aisle number or type of check-out identification.
~~6~~7. Family or assisted-use toilet and bathing rooms.
~~7~~8. Accessible dressing, fitting and locker rooms where not all such rooms are accessible.
~~8~~9. Accessible areas of refuge in accordance with Section 1007.9.
~~9~~10. Exterior areas for assisted rescue in accordance with Section 1007.9.

Reason: This proposal will coordinate with ADA 216.5 Exception 2. While accessible parking spaces would still be required to be provided within the lot, those spaces would not have to be signed when parking was assigned to specific dwelling units or sleeping units.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E218-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1110.1-E-BALDASSARRA-CTC.docx

E219 – 12
1110.1

Proponent: Jerome Seville, Commonwealth of Pennsylvania representing self

Revise as follows:

1110.1 Signs. Required *accessible* elements shall be identified by the International Symbol of Accessibility at the following locations:

1. *Accessible* parking spaces required by Section 1106.1 except where the total number of parking spaces provided is four or less.
2. *Accessible* passenger loading zones.
3. *Accessible* rooms where multiple single-user toilet or bathing rooms are clustered at a single location.
4. *Accessible* entrances where not all entrances are accessible.
5. *Accessible* check-out aisles where not all aisles are accessible. The sign, where provided, shall be above the check-out aisle in the same location as the checkout aisle number or type of check-out identification.
6. Family or assisted-use toilet and bathing rooms.
7. *Accessible* dressing, fitting and locker rooms where not all such rooms are *accessible*.
8. *Accessible areas of refuge* in accordance with Section 1007.9.
9. Exterior areas for assisted rescue in accordance with Section 1007.9.
10. <u>In recreational facilities, lockers that are required to be accessible in accordance with Section 1109.9.</u>

Reason: To readily identify accessible lockers to those individuals who need them when the lockers occur in a public setting. e.g. Locker room of a public golf course or swimming pool.

Cost Impact: Minimal. Just the cost of signs.

E219-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1110.1-E-Seville.doc

E220 – 12
1110.2

Proponent: Randall R. Dahmen, P.E. Wisconsin licensed Commercial Building Inspector, representing self

Revise as follows:

1110.2 Directional and informational signage. ~~Directional signage indicating the route to the nearest like *accessible* element shall be provided at the following locations.~~ Signage indicating directional information, information about functional spaces or signage indicating special accessibility provisions shall be provided at the following locations. These directional signs shall include the International Symbol of Accessibility

1. Inaccessible building entrances.
2. Inaccessible public toilets and bathing facilities.
3. Elevators not serving an *accessible route*.
4. At each separate-sex toilet and bathing room indicating the location of the nearest family or assisted-use toilet or bathing room where provided in accordance with Section 1109.2.1.
5. At *exits* and *exit stairways* serving a required *accessible* space, but not providing an *approved accessible means of egress*, signage shall be provided in accordance with Section 1007.10.

Reason: As written, IBC 1110.3 addresses specific signage for special accessibility provisions. There are situations where functional information is required, but is not addressed by the code. The intent is to broaden this code section so as to address not only the location of accessible counters, communications (computer/telephone), etc. but address unique building functions such as a cafeteria, performing arts center, gymnasium, etc.

Cost Impact: The code change proposal will not increase the cost of construction.

E220-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1110.2-E-Dahmen.doc

E221-12
1110.2

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1110.2 Directional signage. Directional signage indicating the route to the nearest like accessible element shall be provided at the following locations. These directional signs shall include the International Symbol of Accessibility and <u>sign characters shall meet the visual character requirements in accordance with ICC A117.1:</u>

1. Inaccessible building entrances.
2. Inaccessible public toilets and bathing facilities.
3. Elevators not serving an *accessible route*.
4. At each separate-sex toilet and bathing room indicating the location of the nearest family or assisted-use toilet or bathing room where provided in accordance with Section 1109.2.1.
5. At exits and exit stairways serving a required accessible space, but not providing an approved accessible means of egress, signage shall be provided in accordance with Section 1007.10.

Reason: These revisions would be consistent with ADA 216.2, 216.4.1, and 216.10. The intent of this proposal is to add requirements for visual signage where appropriate. In addition, the pictogram for hearing impaired is added for where assistive listening systems are provided.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E221-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1110.2-E-BALDASSARRA-CTC.docx

E222 – 12
1110.2

Proponent: Jerome Seville, Commonwealth of Pennsylvania representing self (Jseville@pa.gov)

Revise as follows:

1110.2 Directional signage. Directional signage indicating the route to the nearest like *accessible* element shall be provided at the following locations. These directional signs shall include the International Symbol of Accessibility:

1. Inaccessible building entrances.
2. Inaccessible public toilets and bathing facilities.
3. Elevators not serving an *accessible route*.
4. At each separate-sex toilet and bathing room indicating the location of the nearest family or assisted-use toilet or bathing room where provided in accordance with Section 1109.2.1.
5. At *exits* and *exit stairways* serving a required *accessible* space, but not providing an *approved accessible means of egress*, signage shall be provided in accordance with Section 1007.10.
6. Where drinking fountains for persons using wheelchairs and drinking fountains for standing persons are not located adjacent to each other, directional signage shall be provided indicating the location of the other drinking fountains.

Reason: IBC 1109.5.1 and 1109.5.2 mandates that at a minimum two drinking fountains are required. One for wheelchair users, one for ambulatory individuals. Should it be determined to locate these fountains at two different locations, signage would assist those disabled individuals locate the accessible drinking fountain.

Cost Impact: None.

E222-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1110.2-E-Seville.doc

E223-12

1007.8.2, 1007.9, 1007.11, 1011.4, 1022.9, 1110.3 (IFC [B] 1007.8.2, 1007.9, 1007.11, 1011.4, 1022.9)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

1110.3 Other signs. Signage indicating special accessibility provisions shall be provided as shown.

1. Each assembly area required to comply with Section 1108.2.7 shall provide a sign notifying patrons of the availability of assistive listening systems complying with the ICC A117.1 requirements for visual characters and shall include the International Symbol of Access for Hearing Loss.

   Exception: Where ticket offices or windows are provided, signs are not required at each assembly area provided that signs are displayed at each ticket office or window informing patrons of the availability of assistive listening systems .

2. At each door to an *area of refuge*, an exterior area for assisted rescue, an egress *stairway*, *exit passageway* and *exit discharge*, signage shall be provided in accordance with Section 1011.4.
3. At *areas of refuge*, signage shall be provided in accordance with Section 1007.11.
4. At exterior areas for assisted rescue, signage shall be provided in accordance with Section 1007.11.
5. At two-way communication systems, signage shall be provided in accordance with Section 1007.8.2.
6. Within interior exit stairways and ramps, floor level signage shall be provided in accordance with Section 1022.9.

1007.8.2 (IFC [B] 1007.8.2) Directions. Directions for the use of the two-way communication system, instructions for summoning assistance via the two-way communication system and written identification of the location shall be posted adjacent to the two-way communication system. Signage shall comply with the ICC A117.1 requirements for visual characters.

1007.9 (IFC [B] 1007.9) Signage. Signage indicating special accessibility provisions shall be provided as shown:

1. Each door providing access to an area of refuge from an adjacent floor area shall be identified by a sign stating: AREA OF REFUGE.
2. Each door providing access to an exterior area for assisted rescue shall be identified by a sign stating: EXTERIOR AREA FOR ASSISTED RESCUE.

Signage shall comply with the ICC A117.1 requirements for visual characters and include the International Symbol of Accessibility. Where exit sign illumination is required by Section 1011.3, the signs shall be illuminated. Additionally, visual characters, raised character and braille signage complying with ICC A117.1 shall be located at each door to an *area of refuge* and exterior area for assisted rescue in accordance with Section 1011.4.

1007.11 (IFC [B] 1007.11) Instructions. In *areas of refuge* and exterior areas for assisted rescue, instructions on the use of the area under emergency conditions shall be posted. Signage shall comply with the ICC A117.1 requirements for visual characters. The instructions shall include all of the following:

1. Persons able to use the *exit stairway* do so as soon as possible, unless they are assisting others.
2. Information on planned availability of assistance in the use of *stairs* or supervised operation of elevators and how to summon such assistance.

3. Directions for use of the two-way communications system where provided.

1011.4 (IFC [B] 1011.4) Raised character and Braille exit signs. A sign stating EXIT in visual characters, raised characters and Braille and complying with ICC A117.1 shall be provided adjacent to each door to an area of refuge, an exterior area for assisted rescue, an exit stairway, an exit ramp, an exit passageway and the exit discharge.

1022.9 (IFC [B] 1022.9) Stairway identification signs. A sign shall be provided at each floor landing in an *interior exit stairway* and *ramp* connecting more than three stories designating the floor level, the terminus of the top and bottom of the *interior exit stairway* and *ramp* and the identification of the *stair* or *ramp*. The signage shall also state the story of, and the direction to, the *exit discharge* and the availability of roof access from the *interior exit stairway* and *ramp* for the fire department. The sign shall be located 5 feet (1524 mm) above the floor landing in a position that is readily visible when the doors are in the open and closed positions. In addition to the *stairway* identification sign, a floor level sign in visual characters, raised characters and braille complying with ICC A117.1 shall be located at each floor level landing adjacent to the door leading from the *interior exit stairway* and *ramp* into the *corridor* to identify the floor level.

Reason: These revisions would be consistent with ADA 216.2, 216.4.1, and 216.10. The intent of this proposal is to add requirements for visual signage where appropriate. In addition, the pictogram for hearing impaired is added for where assistive listening systems are provided.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E223-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1110.3-E-BALDASSARRA-CTC.docx

E224 – 12
1022.9, 1110.3 (IFC [B] 1022.9)

Proponent: Sharon Toji, Access Communications, representing self (SharonToji@me.com)

Revise as follows:

1110.3 Other signs. Signage indicating special accessibility provisions shall be provided as shown.

1. Each assembly area required to comply with Section 1108.2.7 shall provide a sign notifying patrons of the availability of assistive listening systems complying with the ICC A117.1 requirements for visual characters and shall include the International Symbol of Access for Hearing Loss. The sign shall be located outside the entrances to the assembly area.
   Exception: Where ticket offices or windows are provided, signs are not required at each assembly area provided that signs are displayed at each ticket office or window informing patrons of the availability of assistive listening systems .
2. At each door to an *area of refuge*, an exterior area for assisted rescue, an egress *stairway*, *exit passageway* and *exit discharge*, signage shall be provided in accordance with Section 1011.4.
3. At *areas of refuge*, signage shall be provided in accordance with Section 1007.11.
4. At exterior areas for assisted rescue, signage shall be provided in accordance with Section 1007.11.
5. At two-way communication systems, signage shall be provided in accordance with Section 1007.8.2.
6. Within interior exit stairways and ramps, floor level signage shall be provided in accordance with Section 1022.9.

1022.9 (IFC [B] 1022.9) Stairway identification signs. A sign shall be provided at each floor landing in an *interior exit stairway* and *ramp* connecting more than three stories designating the floor level, the terminus of the top and bottom of the *interior exit stairway* and *ramp* and the identification of the *stair* or *ramp*. The signage shall also state the story of, and the direction to, the *exit discharge* and the availability of roof access from the *interior exit stairway* and *ramp* for the fire department. The sign shall be located 5 feet (1524 mm) above the floor landing in a position that is readily visible when the doors are in the open and closed positions. In addition to the *stairway* identification sign, a floor level sign in visual characters, raised characters and braille complying with ICC A117.1 shall be located at each floor level landing adjacent to the door leading from the *interior exit stairway* and *ramp* into the *corridor* to identify the floor level. On the level of exit discharge, a five pointed tactile star shall be placed to the left of the level designator. The diameter of the star shall be equal to the height of the raised character level designator, and shall be translated into contracted braille as "Main."

Reason: Proposed revisions bring the items into compliance with 2010 ADA, and add clarity for requirements for visual signage.

The location for the assistive listening sign is made more precise because the sign is too often located randomly where space is available inside the assembly or conference area, where it is not likely to be noticed or seen. I believe that the intent is to locate it where it will be seen at the entry point.

The five pointed star should be added to the floor designator in stairways, because this sign is to provide information analogous to the elevator hoistway signs, for persons who are blind and visually impaired who are, for various reasons, using the stairway for vertical access, rather than the elevator. It signals that they have reached the exit level, just as the stair does on the elevator hoistways.

Cost Impact: none, or a possible slight reduction in cost at some Areas of Refuge.

E224-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1110.3-E-Toji.doc

E225-12
E106 (New)

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

SECTION E106
RECREATIONAL FACILITIES

E106.1 Golf Facilities. Golf facilities shall comply with E106.1.1 through E106.1.4.

E106.1.1 Golf Courses. Golf courses shall comply with E106.1.1.1 through E106.1.1.3.

E106.1.1.1 Teeing Grounds. Where one teeing ground is provided for a hole, the teeing ground shall be designed and constructed so that a golf car can enter and exit the teeing ground. Where two teeing grounds are provided for a hole, the forward teeing ground shall be designed and constructed so that a golf car can enter and exit the teeing ground. Where three or more teeing grounds are provided for a hole, at least two teeing grounds, including the forward teeing ground, shall be designed and constructed so that a golf car can enter and exit each teeing ground.

E106.1.1.2 Putting Greens. Putting greens shall be designed and constructed so that a golf car can enter and exit the putting green.

E106.1.1.3 Weather Shelters. Where provided, weather shelters shall be designed and constructed so that a golf car can enter and exit the weather shelter and shall be accessible.

E106.1.2 Practice Putting Greens, Practice Teeing Grounds, and Teeing Stations at Driving Ranges. At least 5 percent, but no fewer than one, of practice putting greens, practice teeing grounds, and teeing stations at driving ranges shall be designed and constructed so that a golf car can enter and exit.

E106.1.3 Accessible route. At least one accessible route shall connect accessible elements and spaces within the boundary of the golf course. In addition, accessible routes serving golf car rental areas; bag drop areas; course weather shelters complying with Section E106.1.1.3; course toilet rooms; practice putting greens; practice teeing grounds; and teeing stations at driving ranges complying with Section E106.1.2 shall comply with the accessible route requirements for golf courses in ICC A117.1.

> **Exception:** Accessible golf car passages shall be permitted to be used for all or part of accessible routes required by this section.

E106.1.4 Teeing Grounds. When teeing grounds are being altered, teeing grounds shall comply with Section E106.1.1.1.

> **Exception:** In existing golf courses, the forward teeing ground shall not be required to be one of the teeing grounds on a hole designed and constructed so that a golf car can enter and exit the teeing ground where compliance is not feasible due to terrain.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

This proposal is part of a coordination effort with the 2010 ADA Standard for Accessible Design and the new technical provisions for recreational facilities found in 2009 ICC A117.1 Chapter 11. This overall proposal for recreational facilities has been divided into parts so that the membership can look at each type of recreational facilities on its own merit. The overall intent is to

provide access to recreational facilities so that persons with mobility impairments can participate to the best of their ability. The requirements are not intended to change any essential aspects of that recreational activity.

This proposal contains scoping provisions for constructed elements within golf facilities. Where an element within a golf course is subject to the building code, this will ensure that people with disabilities are not excluded from the recreational and business opportunities on the course. Please note that a passage sufficiently wide for a golf car substitutes for an accessible route. Today, golfers with disabilities use accessible golf cars, also known as single-rider carts, that are designed to have little impact on the greens and are operated with one-handed controls. Golfers sit in the swivel seats and position to hit the ball from a seated position. Technical criteria can be found in the 2009 edition of the ICC A117.1, Section 1106 and includes criteria for accessible routes, golf cart passage and weather shelters.

Cost Impact: None – This will be required by the 2010 ADA Standard for Accessible Design.

E225-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

E106-E-BALDASSARRA-CTC.docx

E226-12
E107.2

Proponent: Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

Revise as follows:

E107.2 Designations. Interior and exterior signs identifying permanent rooms and spaces shall be visual characters, raised characters and braille complying with ICC A117.1. Where pictograms are provided as designations of interior rooms and spaces, the pictograms shall have visual characters, raised characters and braille complying with ICC A117.1.

Reason: The addition of visual character requirements for room designation signage would be consistent with ADA 216.2. These types of signs are required to provided visual characters, raised character and braille. Currently, IBC only requires raised character and braille.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Cost Impact: None

E226-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

E107.2-E-BALDASSARRA-CTC.docx

E227 – 12
Appendix L (New).

Proponent: Stephen V. Skalko Portland Cement Association and Jason Thompson National Concrete Masonry Association representing the Masonry Alliance for Codes and Standards

Add new Appendix L as follows:

APPENDIX L
BUILDING RESILIENCE

The provisions in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

SECTION L101
GENERAL

L101.1 Purpose. The purpose of this appendix is to promote enhanced public health, safety and general welfare and to reduce public and private property losses due to hazards and natural disasters associated with fires, flooding, high winds and earthquakes.

SECTION L102
INTERIOR FINISHES

L102.1 General. *Building* interior finishes shall comply with Sections L102.1 through L102.3.

L102.2 Interior Wall and Ceiling Finishes. Interior wall and ceiling finishes and conform to the requirements of this section.

L102.2.1 Finish by occupancy. Interior wall and ceiling finishes based on occupancy shall conform to the requirements in Table L102.1.

TABLE L102.2
INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY

GROUP	EXIT ENCLOSURES AND EXIT PASSAGEWAYS[a]	CORRIDORS	ROOMS AND ENCLOSED SPACES[b]
A-1, A-2	A	A	B
A-3, A-4, A-5	A	A	C
B, E, M, R-1, R-4	A	B	C
F	B	C	C
H	A	A	B
I-1	A	B	B
I-2, I-3, I-4	A	A	B
R-2	B	B	C
R-3	A	C	C
S	B	B	C
U	No Restrictions		

For SI: 1 inch = 25.4 mm, 1 square inch = 0.0929m^2

a. Class C interior finish materials shall be permitted for wainscoting or paneling of not more than 1,000 square feet of applied surface area in the grade lobby where applied directly to a noncombustible base or over furring strips applied to a noncombustible base and fire blocked as required by Section 803.11.1.

b. Requirements for rooms and enclosed spaces shall be based upon spaces enclosed by partitions. Where a fire-resistance rating is required for structural elements, the enclosing partitions shall extend from the floor to the ceiling. Partitions that do not comply with this shall be considered enclosing spaces and rooms or spaces on both sides shall be considered as one. In determining the applicability of the requirements for rooms and enclosed spaces, the specific occupancy thereof shall be the governing factor regardless of the group classification of the building or structure.

L102.2.2 Set-out construction. The exception to Section 803.11.2, shall not be permitted.

L102.3 Interior Floor Finishes. The Exception to Section 804.4.2 shall not be permitted.

SECTION L103
FIRE PROTECTION SYSTEMS

L103.1 General. B*uilding* fire protection systems shall comply with Sections L103.1 through L103.3.

L103.2 Standpipes. Standpipes shall comply with the requirements of Sections L103.2.1 through L103.2.3.

L103.2.1 Height. The exceptions 1 and 4 of Section 905.3.1, shall not be permitted

L103.2.2 Stages. The exception to Section 905.3.4, shall not be permitted.

L103.2.3 Protection. The exception to Section 905.4.1, shall not be permitted.

L103.3 Fire Alarm and Detection Systems. Fire alarms and detection systems shall comply with the requirements of Sections L103.3.1 and L103.3.2.

L103.3.1 Group R-1. Exception 2.1 of Section 907.2.8.1, shall not be permitted.

L103.3.2 Group R-2. Exception 2 of Section 907.2.9.1 shall not be permitted

SECTION L104
MEANS OF EGRESS

L104.1 General. B*uilding* means of egress shall comply with Sections L104.1 through L104.6.

L104.2. Accessible Means of Egress. Accessible means of egress shall comply with the requirements of this Section.

L104.2.1 Stairway clear width. Exception 1 of Section 1007.3, shall not be permitted.

L104.2.2 Area of refuge at stairways. Exception 2 of Section 1007.3, shall not be permitted.

L104.2.3 Areas of refuge at elevators. Exception 2 of Section 1007.4, shall not be permitted.

L104.3 Exit Access. Footnote b to Table 1014.3, shall not be permitted.

L104.4 Exits and Exit Access Doorways. Exits and exit access doorways shall comply with the requirements of this Section.

L104.4.1 Group R-2 and R-3. Exception 1 in Section 1015.1 (1), shall not be permitted.

L104.4.2 Separation distance. Exception 2 of Section 1015.2.1, shall not be permitted.

L104.5 Exit Access Travel Distance. Exit access travel distance shall comply with the requirements of this Section.

L104.5.1 Maximum travel distance. Maximum travel distance shall not exceed 200 feet.

L104.5.2 Atrium. Distance limitations through atrium spaces shall conform with Section 404.

L104.5.3 One exit building. Exit access in buildings with one exit shall conform to Section 1021.2,

L104.6 Corridors. Corridors shall comply with the requirements of this Section.

L104.6.1 Corridor wall rating. The fire-resistance rating of corridor walls shall be at least 1-hour.

L104.6.2 Dead ends. Exception 2 in Section 1018.4, shall not be permitted.

REASON: This reason statement has the following two segments to explain the reasons for this change: (A) The code change is explained with specific substantiation; and (B) General background information identifying the need for enhanced property protection and functional resilience for to strengthen the built environment;

(A) The following are reports of dollar loss to property from wind, cold weather and fire disasters.

- The American Society of Civil Engineers reported in *Normalized Hurricane Damage in the United States*, *1900 – 2005,* National Hazard Review, ASCE 2008, that property damage from hurricanes was 81 billion dollars in 2005.
- The National Weather Service reports that U.S. property damage due to winter storms and ice exceeded 1.5 billion dollars in 2009.
- *Fire Losses in the United States During 2009* by the National Fire Protection Association, August 2010 shows that property loss due to structure fires in buildings other than one and two family dwellings was approximately 4.5 billion dollars.

Increasing the stringency of the design criteria of buildings for hazards such as wind, snow or fire results in more robust buildings. Such requirements reduce the amount of energy and resources required for repair, removal, disposal and replacement of building components and systems damaged from these disasters. A further benefit is a reduction in the amount of damaged building materials and content entering landfills.

Additional benefits are enhanced life safety, security and occupant comfort; potentially less demand on community resources required for emergency response; and allowing facilities to be more readily adapted for re-use if there is a change of occupancy in the future.

(B) Minimum building requirements whether through energy codes, plumbing codes, mechanical codes, zoning codes, or basic building codes, do not encourage truly sustainable buildings. This proposal is one of several that attempt to integrate the concepts of the *Whole Building Design Guide* (WBDG) into the International Building Code as a non-mandatory Appendix. This allows adopting jurisdictions the option of incorporating code requirements into the building code to improve the resilience of the built environment without the need to add another code to the community requirements.

The WBDG, developed in partnership between the National Institute of Building Sciences (NIBS) and the Sustainable Building Industries Council (SBIC), has as its key concepts: accessible, aesthetics, cost-effective, functional/operational, historic preservation, productive, secure/safe, and sustainable.

There are numerous references about the economic, societal, and environmental benefits that result when enhanced functional resilience for resource minimization are integrated into building design and construction. Six examples demonstrating the importance and supporting the concepts are:

1. Natural Hazard Mitigation Saves: An Independent Study to Assess the Future Savings from Mitigation Activities
National Institute of Building Sciences Multi-Hazard Mitigation Council - 2005

One of the findings in this report is "The analysis of the statistically representative sample of FEMA grants awarded during the study period indicates that a dollar spent on disaster mitigation saves society an average of $4." The programs studied often addressed issues and strategies other than enhanced disaster resistance of buildings and other structures. However, more disaster-resistant buildings enhance life safety; reduce costs and environmental impacts associated with repair, removal, disposal, and replacement; and reduce the time and resources required for community recovery.

2. Five Years Later – Are we better prepared?
Institute for Business and Home Safety - 2010

This IBHS report states: "When Hurricane Katrina made landfall on Aug. 29, 2005, it caused an estimated $41.1 billion in insured losses across six states, and took an incalculable economic and social toll on many communities. Five years later, the recovery continues and some residents in the most severely affected states of Alabama, Louisiana and Mississippi are still struggling. There is no question that no one wants a repeat performance of this devastating event that left at least 1,300 people dead. Yet, the steps taken to improve the quality of the building stock, whether through rebuilding or new construction, call into question the commitment of some key stakeholders to ensuring that past mistakes are not repeated." This report indicates that there is a need to implement provisions to make buildings more disaster-resistant. Clearly this suggests that functional resilience should at least be integrated into the design and construction of sustainable buildings.

3. National Weather Service Office of Climate, Water and Weather Services
National Oceanic and Atmospheric Administration (NOAA) - 2010

Data provided on the NOAA website [www.weather.gov/os/hazstats.shtml] indicates that the average annual direct property loss due to natural disasters in the United States exceeds of $35,000,000,000. This does not include indirect costs associated with

loss of residences, business closures, and resources expended for emergency response and management. These direct property losses also do not reflect the direct environmental impact due to reconstruction after the disasters. Functional resilience will help alleviate the environmental impact and minimize both direct and indirect losses from natural disasters.

4. Global Climate Change Impacts in the United States

U.S. Global Change Research Program (USGCRP) - 2009

The USGCRP includes the departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Interior, State and Transportation; National Aeronautic and Space Administration; Environmental Protection Agency, USA International Development, National Science Foundation and Smithsonian Institution

The report identifies that: "Climate changes are underway in the United States and are projected to grow. Climate-related changes are already observed in the United States and its coastal waters. These include increases in heavy downpours, rising temperature and sea level, rapidly retreating glaciers, thawing permafrost, lengthening growing seasons, lengthening ice-free seasons in the ocean and on lakes and rivers, earlier snowmelt, and alterations in river flows. These changes are projected to grow." The report further identifies that the: "Threats to human health will increase. Health impacts of climate change are related to heat stress, waterborne diseases, poor air quality, extreme weather events, and diseases transmitted by insects and rodents. Robust public health infrastructure can reduce the potential for negative impacts." Key messages in the report on societal impacts include:

- "City residents and city infrastructure have unique vulnerabilities to climate change. "
- "Climate change affects communities through changes in climate-sensitive resources that occur both locally and at great distances."
- "Insurance is one of the industries particularly vulnerable to increasing extreme weather events such as severe storms, but it can also help society manage the risks."

Sustainable building design and construction cannot be about protecting the natural environment without consideration of the projected growth in severe weather. Minimum codes primarily based on past natural events are not appropriate for truly sustainable buildings. Buildings expected to have long term positive impacts on the environment must be protected from these extreme changes in the natural environment. The provisions for improved property protections are necessary to reduce the amount of energy and resources associated with repair, removal, disposal, and replacement due to routine maintenance and damage from disasters. Further such provisions reduce the time and resources required for community disaster recovery.

5. Sustainable Stewardship - *Historic preservation plays an essential role in fighting climate change ,*
Traditional Building, National Trust for Historic Preservation - 2008

In the article Richard Moe summarizes the results of a study by the Brookings Institution which projects that by 2030 we will have demolished and replaced 82 billion square feet of our current building stock, or nearly 1/3 of our existing buildings, largely because the vast majority of them weren't designed and built to last any longer. Durability, as a component of functional resilience, can reduce these losses.

6. Opportunities for Integrating Disaster Mitigation and Energy Retrofit Programs

Senate Environment and Public Works Committee Room, Dirksen Senate Office Building, Washington, D.C. - 2010

During this panel discussion a representative of the National Conference of State Historic Preservation Officers noted that more robust buildings erected prior to 1950 tend to be more adaptable for reuse and renovation. Prior to the mid-1950s most local jurisdictions developed their own building code requirements that uniquely addressed the community's needs, issues and concerns. Pre-1950 building codes typically resulted in more durable and robust construction that lasts longer.

The total environmental impact of insulation, high efficiency equipment, components, and appliances, low-flow plumbing fixtures, and other building materials and contents are relatively insignificant when rendered irreparable or contaminated and must be disposed of in landfills after disasters. The US Army Corps of Engineers estimated that after Hurricane Katrina nearly 1.2 billion cubic feet of building materials and contents ended up in landfills. This is analogous to stacking enough refrigerators a fifth of the way to the moon or placing them end to end around the equator of the Earth twice.

Cost Impact: This proposal will increase the cost of construction

Staff note: This proposal is one of several proposals adding a new appendix L. The intention of the proponent has been indicated that the contents of the proposals be combined if they should be approved into a single Appendix L Titled "Appendix L, Building Resilience."

E227-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

APPENDIX L (NEW) #3-G-SKALKO-THOMPSON.doc

E228 – 12

1022.6, Chapter 35; (IFC [B] 1022.6, Chapter 80) (IMC [B] 601.3, Chapter 15)

Proponent: Tony Crimi, A.C. Consulting Solutions Inc, representing International Firestop Council (tcrimi@sympatico.ca)

Revise as follows:

1022.6 (IFC [B] 1022.6) Ventilation. Equipment and ductwork for interior exit stairway and ramp ventilation as permitted by Section 1022.5 shall comply with one of the following items:

1. Such equipment and ductwork shall be located exterior to the building and shall be directly connected to the interior exit stairway and ramp by ductwork enclosed in construction as required for shafts.
2. Where such equipment and ductwork is located within the interior exit stairway and ramp, the intake air shall be taken directly from the outdoors and the exhaust air shall be discharged directly to the outdoors, or such air shall be conveyed through ducts enclosed in construction as required for shafts.
3. Where located within the building, such equipment and ductwork shall be separated from the remainder of the building, including other mechanical equipment, with construction as required for shafts.
4. Where located within the building, such *equipment* and ductwork shall be separated from the remainder of the building, including other mechanical *equipment*, with ductwork tested and *listed* for not less than 2-hour fire-resistance in accordance with ASTM E2816-11.

In each case, openings into the fire-resistance-rated construction shall be limited to those needed for maintenance and operation and shall be protected by opening protectives in accordance with Section 716 for shaft enclosures. The interior exit stairway and ramp ventilation systems shall be independent of other building ventilation systems.

IMC [B] 601.3 Exits. *Equipment* and ductwork for ~~exit enclosure~~ interior exit stairway and ramp ventilation shall comply with one of the following items:

1. Such *equipment* and ductwork shall be located exterior to the building and shall be directly connected to the ~~exit enclosure~~ interior exit stairway and ramp by ductwork enclosed in construction as required by the *International Building Code* for shafts.
2. Where such *equipment* and ductwork is located within the exit enclosure, the intake air shall be taken directly from the outdoors and the *exhaust air* shall be discharged directly to the outdoors, or such air shall be conveyed through ducts enclosed in construction as required by the *International Building Code* for shafts.
3. Where located within the building, such *equipment* and ductwork shall be separated from the remainder of the building, including other mechanical *equipment*, with construction as required by the *International Building Code* for shafts.
4. Where located within the building, such *equipment* and ductwork shall be separated from the remainder of the building, including other mechanical *equipment*, with ductwork tested and *listed* for not less than 2-hour fire-resistance in accordance with ASTM E2816-11.

In each case, openings into fire-resistance-rated construction shall be limited to those needed for maintenance and operation and shall be protected by self-closing fire-resistance-rated devices in accordance with the *International Building Code* for enclosure wall opening protectives. ~~Exit enclosure~~ The interior exit stairway and ramp ventilation systems shall be independent of other building ventilation systems.

Add referenced standard to Chapter 35 (IFC Chapter 80, IMC Chapter 15) as follows:

ASTM E2816-11, *Standard Test Methods for Fire Resistive Metallic HVAC Duct Systems*

Reason: This proposal would allow an additional tested method of protection for duct enclosures used for ventilation of exit enclosures. The ductwork would be permitted to be used if it were protected by a tested and listed assembly conforming to the new *ASTM E2816-11, Standard Test Methods for Fire Resistive Metallic HVAC Duct Systems* evaluated for the specific purpose. This test is now also referenced as part of ICC-ES AC179, Acceptance Criteria for Metallic HVAC Duct Enclosure Assemblies. The purpose of these acceptance criteria is to establish requirements for fire protection enclosure systems applied to metallic HVAC ducts, which provides an alternate to required fire-resistance-rated shafts or an alternate to required fire dampers in specific locations. This criterion provides an alternate to shaft enclosures for vertical ducts.

This Standard has criteria for testing rigid or flexible fire protection enclosure systems (including stability, integrity, and insulation) that are installed on or as part of metallic HVAC ducts, yielding an alternate to required fire-resistance-rated shafts which are required to be protected from both internal and external fire exposure. This criteria provides an alternate to shaft enclosures for horizontal and vertical ducts.

The new ASTM Standard evaluates the HVAC duct systems for surface burning characteristics, non-combustibility, fire resistance, durability, and fire engulfment with horizontal and vertical through-penetration firestops. The Standard can evaluate the fire performance of HVAC ducts for both supply (pressurization) and return air, in the vertical and horizontal orientation, with or without openings. These test methods evaluate the ability of a HVAC duct system to resist the spread of fire from one compartment to another compartment separated by fire resistance rated construction when the HVAC duct system is exposed to fire from the outside of the horizontal or vertical HVAC duct system, or from the outside with hot gases entering the inside of the HVAC duct system from unprotected openings, when subjected to the standard time-temperature curve of ASTM E119.

The change from 'exit enclosure' to 'interior exit stairway and ramp' is for consistency in language between the documents. This was part of E5-09/10 during the last cycle.

Cost Impact: This change will reduce the cost of construction.

Analysis: A review of the standard proposed for inclusion in the code, ASTM E2816-11 with regard to the ICC criteria for referenced standards (Section 3.6 of CP#28) will be posted on the ICC website on or before April 2, 2012.

E228-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1022.6-E-Godwin-NICHOLAS.doc

E229 – 12

1022.6, Chapter 35; (IFC [B] 1022.6, Chapter 80) (IMC [B] 601.3, Chapter 15)

Proponent: John D. Nicholas of Perceptive Solutions LLC representing Unifrax I LLC (john@perceptivesolutionsllc.com)

Revise as follows:

1022.6 (IFC [B] 1022.6) Ventilation. Equipment and ductwork for interior exit stairway and ramp ventilation as permitted by Section 1022.5 shall comply with one of the following items:

1. Such equipment and ductwork shall be located exterior to the building and shall be directly connected to the interior exit stairway and ramp by ductwork enclosed in construction as required for shafts.
2. Where such equipment and ductwork is located within the interior exit stairway and ramp, the intake air shall be taken directly from the outdoors and the exhaust air shall be discharged directly to the outdoors, or such air shall be conveyed through ducts enclosed in construction as required for shafts.
3. Where located within the building, such equipment and ductwork shall be separated from the remainder of the building, including other mechanical equipment, with construction as required for shafts.
4. A tested and listed fire resistive metallic duct system in compliance with ASTM E2816-11, shall be used as the ductwork or as an enclosure for equipment, or for both ductwork and enclosure purposes.

In each case, openings into the fire-resistance-rated construction shall be limited to those needed for maintenance and operation and shall be protected by opening protectives in accordance with Section 716 for shaft enclosures. The interior exit stairway and ramp ventilation systems shall be independent of other building ventilation systems.

IMC [B] 601.3 Exits. *Equipment* and ductwork for ~~exit enclosure~~ interior exit stairway and ramp ventilation shall comply with one of the following items:

1. Such *equipment* and ductwork shall be located exterior to the building and shall be directly connected to the ~~exit enclosure~~ interior exit stairway and ramp by ductwork enclosed in construction as required by the *International Building Code* for shafts.
2. Where such *equipment* and ductwork is located within the exit enclosure, the intake air shall be taken directly from the outdoors and the *exhaust air* shall be discharged directly to the outdoors, or such air shall be conveyed through ducts enclosed in construction as required by the *International Building Code* for shafts.
3. Where located within the building, such *equipment* and ductwork shall be separated from the remainder of the building, including other mechanical *equipment*, with construction as required by the *International Building Code* for shafts.
4. A tested and listed fire resistive metallic duct system in compliance with ASTM E2816-11, shall be used as the ductwork or as an enclosure for equipment, or for both ductwork and enclosure purposes.

In each case, openings into fire-resistance-rated construction shall be limited to those needed for maintenance and operation and shall be protected by self-closing fire-resistance-rated devices in accordance with the *International Building Code* for enclosure wall opening protectives. ~~Exit enclosure~~ The interior exit stairway and ramp ventilation systems shall be independent of other building ventilation systems.

Add referenced standard to Chapter 35 (IFC Chapter 80, IMC Chapter 15) as follows:

ASTM E2816-11, *Standard Test Methods for Fire Resistive Metallic HVAC Duct Systems*

Reason: This proposed code change allows for the use of either a pre-fabricated duct system or field applied enclosure system in lieu shaft enclosures, when these duct systems are tested and listed in accordance with *ASTM E2816-11, Standard Test Methods for Fire Resistive Metallic HVAC Duct Systems* a full consensus test method that was specifically designed to assess both specific end use of the ductwork and its protection materials.

This method of tests also assesses both an internal and external fire threat to the ductwork (refer to the table below) as well as the transition or connection of horizontal ducts to vertical ducts. Fire resistive metallic duct systems tested and listed to ASTM E2816 may provide a higher degree of fire protection. Shaft enclosures tested to ASTM E119 are tested as panels and are not subjected to an engulfment scenario as are fire resistive metallic duct systems tested and listed to ASTM E2816.

ASTM E2816 References
1.4.1 *Condition A*—These test methods provide a means for evaluating a **horizontal** HVAC duct system, **without openings** exposed to fire, passing through a vertical fire-separating element.
1.4.2 *Condition B*—These test methods provide a means for evaluating a **vertical** HVAC duct system, **without openings** exposed to fire and outfitted with a horizontal connection, passing through a horizontal fire-separating element.
1.4.3 *Condition C*—These test methods provide a means for evaluating a **horizontal** HVAC duct system, **with unprotected openings** exposed to fire, passing through a vertical fire-separating element.
1.4.4 *Condition D*—These test methods provide a means for evaluating a **vertical** HVAC duct system with a horizontal connection, and **with unprotected openings** exposed to fire, passing through a horizontal fire-separating element.

This method of tests uses the ASTM E119 time-temperature curve and replicates use of exhaust by using a fan technique to create a negative pressure within the duct similar to that in use. This method of tests also assesses both an internal and external fire threat to the duct as well as the transition or connection of horizontal ducts to vertical ducts. In ASTM E2816, the systems supports are also tested as part of the fire resistance test. ASTM E2816 offers the following tests to assess performance: ASTM E84 for the system's flame spread and smoke developed indices, ASTM E136 for insulation's non-combustibility, ASTM C518 for the insulation's durability and ASTM E814 for the system's ability as a firestop to prevent the spread of fire from compartment to compartment, ASTM E2226 for the resistance to the application of a hose stream, and ASTM C411 for the insulation covering's and lining's ability to resist flaming, glowing, smoldering or smoking while in service, which was just approved in December 2011 and this test method will also become part of the standard upon its latest publication.

ICC-ES AC179, *Acceptance Criteria for Metallic HVAC Duct Enclosure Assemblies,* cites ASTM E2816-11 to establish requirements for fire protection enclosure systems, applied to metallic HVAC ducts which provide an alternate to required fire-resistance-rated shafts or an alternate to required fire dampers in specific locations, as well as to determine the characteristics of the system and enclosure material currently cited in the codes.

These comments are respectfully submitted as the ASTM Task Group Chair of ASTM E2816 who drafted its first version, as the ANSI Designated Expert to ISO TC92 SC2 WG4 that created and maintains ISO 6944 *Fire Containment — Elements of Building Construction — Part 1: Ventilation Ducts* and one who has designed, supervised, and overseen HVAC fire tests as part of an international laboratory as well as one who had jurisdiction over the product certification process for products and materials.

The change from 'exit enclosure' to 'interior exit stairway and ramp' is for consistency in language between the documents. This was part of E5-09/10 during the last cycle.

Cost Impact: This change will reduce the cost of construction.

Analysis: A review of the standard proposed for inclusion in the code, ASTM E2816-11 with regard to the ICC criteria for referenced standards (Section 3.6 of CP#28) will be posted on the ICC website on or before April 2, 2012.

E229-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

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