ICC CODE TECHNOLOGY COMMITTEE

BALANCED FIRE PROTECTION – HEIGHT & AREA STUDY GROUP MEETING #4

January 3 – 4, 2007

DRAFT MINUTES

Meeting location: Orange County Fire Authority Building
1 Fire Authority Road
Irvine, CA
(Hotel: Embassy Suites-Irvine)

January 3: 8:00 am – 5:00 pm
January 4: 8:00 am – 5:00 pm

1.0 Welcome and introductions – Co-chairs Collins & Dargan

1.1 Call to order; introductions; welcoming remarks

The meeting was called to order at 8:30 am on January 3rd, welcoming those in attendance. Self introductions were made.

Voting members present: Carl Baldassarra, Laura Blaul, Dave Collins (Co-chair), Kate Dargan (Co-chair), Dave Frable, Jim Messersmith, Jim Narva, Ron Nickson, Dennis Richardson, Emory Rodgers, Jerry Sanzone, Rick Thornberry, Dave Tyree (for Sam Francis), Robert Wills

Non voting members present: Jon Siu

Members absent: Sean DeCrane (non voting), Paul Myers (non voting), Larry Perry

Staff liaison: Mike Pfeiffer

The co-chairs noted that this is the last meeting of the study group's activities relative to the code changes submitted to the height and area provisions in the 2006/2007 cycle. A meeting recap was discussed:

- Kansas City: Kick off meeting. Deliberate time spent to address institutional barriers
- Chicago: Big picture issues, both height and area and longer term goals. A possible compromise for unprotected types of construction was introduced.
- Phoenix: IBC H&A discrepancies when compared to the legacy codes and the drafting philosophy. Meeting concluded on a less than positive note.

To date, relationships have been forged and lines of communication established. For this meeting, the group needs to get re-focused on the positive. No group will be forced into withdrawing their code change. Passages from the "Tao of leadership" were cited.

2.0 Approve agenda

Approved.

3.0 Approve minutes of Meeting #3 December 11 - 12, 2006

Approved. There is a typo in Table 503 under item 5.0. The VB; R-2 entry should be 7,000 sq. ft.

4.0 Report of task group to review the H&A philosophy

4.1 Current IBC H&A philosophy

Carl noted the unique opportunity we have to thoroughly investigate not only the current IBC but take a forward looking approach to this issue as well. To date, there has been nothing received since the last meeting.

4.2 Forward looking approach to H&A in the IBC

Issues noted:

- Performance approach, reference made to NFPA 5000 Annex
- Compartmentation concept – protection and evacuation of occupants
- How does a building and the occupants respond in an emergency

The group discussed the following statements.

1. Collaboration works better than confrontation to develop the code.

Discussion:

- Relationships matter, focus on the issue, listen and share perspectives, look for win-win
- The code is a product of the governmental consensus code development process of ICC.
- The code development process needs to be reviewed and possibly revised.
- Code Committee needs to review member final action and weigh in. Need to have more code committee involvement.
- Membership block voting concerns
- Debate (confrontational) versus discussion
- Improve the code quicker with collaboration, more efficient
- Will always have confrontation in the development, unavoidable given the process
- Don't revise the process, let the members decide the outcome
- The system requires pre-collaboration to get major changes through

2. With respect to building safety, the code can be improved.

Discussion:

- Code is a living document, can always be improved
- Revise to read: The code can be improved to better meet the needs of building safety in terms of: occupant, firefighter/emergency responder, public, property and public welfare (mission continuity, tax preservation)
- Need to make improvements in the code
- Current code could do better
- In the Code Dev process, there is a lack of interconnectivity..code process focuses on one aspect versus the system

3 . There are some short-term improvements to H&A to be made, but mostly system improvements to achieve safety goals and objectives.

Discussion:

- Few short term, many system wide
- Tweeks to cells in H&A should be made. Most of focus should be system improvements based on risk to improve building safety.
- Build to current IBC is not an unsafe building

- H&A needs some changes but not core issue for building safety, the relationship of passive/active/emergency response affect safety as well

4. Buildings constructed to code are reasonably safe, but there are items to be addressed that may make the code system work better.

Discussion:

- Delete 2 and 3……covered in 4
- Revise:….to code provide an acceptable minimum level of safety, but there…
- Need reasonable occupant and property protection..code inconsistent in terms of protection
- 2 and 4 are opposites, can't remove 2
- If you were to "grade" the code, it is a B-; it needs to be an A-
- Revise: Buildings that comply with the IBC provide a minimum level of safety that all communities may not agree to be the minimum. The code needs to work better as a system with defined goals and objectives.

5. Code provisions should be based on rational assessment.

Discussion:

- There is no generally accepted system of measuring the safety of a building. Code provisions have been based on a rational assessment…technical, data, science, experience and cost
- Codes need to be based on an articulated set of reasons
- Includes taking into account the needs of the stakeholders (see 2 above for list of stakeholders)

The group then worked on a list of short term vs long term issues:

Short term (Height and area through 2007/2008 cycle)	Long term
T503 anomalies vs drafting philosophy	Compartmentation
4/5 story unrated construction	Do we need area limits?
R-1 and R-2 w/ smoke barriers	Maintenance and inspection
Group I	Smoke compartments
G113-06/07	Exiting/stairs
	Impact of natural hazards
	Philosophy of the building code

A task force of Laura, Carl and Jim Narva was created to review and report back. The full study group discussed the report, made revisions and approved the report. The finalized report is Attachment A.

5.0 Develop public comments, if any, based on:

5.1 Meeting #3: Table 503 largest legacy code building area

5.1.1 Including updates for one & two story calculated after Meeting #3

Not discussed. Spreadsheet to be posted.

5.2 Meeting #3: Height revisions for Type IIB and IIIB construction

The following was approved for Types IIB and IIB construction:

Group	Current T503 height	Proposed T503 height
B	4 st	3 st
M	4 st	2 st
S-1	3 st	2 st
S-2	4 st	3 st

This table is the basis for possible public comments in the 2006/2007 cycle, provided the occupancy is within the scope of the original code change.

5.3 Meeting #3: Height revisions for Groups R-1 and R-2

5.3.1 Task group report (TG established at Meeting #3)

The group reviewed the following:

TABLE 503

GROUP		IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
R-1	S	UL	11	~~4~~ 5[d]	~~4~~ 2	~~4~~ 5[d]	~~4~~ 2	~~4~~ 5[d]	~~3~~ 4[d]	2
	A	UL	UL	24000	16000	24000	16000	20500	12000	7000
R-2	S	UL	11	~~4~~ 5[d]	~~4~~ 2	~~4~~ 5[d]	~~4~~ 2	~~4~~ 5[d]	~~3~~ 4[d]	2
	A	UL	UL	24000	16000	24000	16000	20500	12000	7000

d. In buildings over 3 stories, smoke barriers shall be provided to subdivide floors (every story containing sleeping rooms or combinations of stories and levels when within a dwelling unit) along with contiguous exit corridors or passageways to be contained in the same compartment so that the maximum total floor area contained within a smoke compartment shall not exceed 12,000 square feet.

903.1.2.2 Four story buildings. Sprinklers installed in a four story building shall be installed in all areas throughout the building without any omissions allowed by the standard.

Possible revisions:

GROUP	IIA	IIB	IIIA	IIIB	VA	VB
Short term						
Revised Mtg #4	5 [d]	3	5 [d] (4??)	2	4 [d]	2
06 IBC	4	4	4	4	3	2
R-1 Mtg 3	~~4~~ 5[d] 24000	~~4~~ 2 16000	~~4~~ 5[d] 24000	~~4~~ 2 16000	~~3~~ 4[d] 12000	2 7000
R-2 Mtg 3	~~4~~ 5[d] 24000	~~4~~ 2 16000	~~4~~ 5[d] 24000	~~4~~ 2 16000	~~3~~ 4[d] 12000	2 7000

d. In buildings over ~~3~~ 4 stories, smoke barriers shall be provided to subdivide floors (every story containing sleeping rooms or combinations of stories and levels when within a dwelling unit) along with contiguous exit corridors or passageways to be contained in the same compartment so that the maximum total floor area contained within a smoke compartment shall not exceed 12,000 square feet.

~~**903.1.2.2 Four story buildings.** Sprinklers installed in a four story building shall be installed in~~

~~all areas throughout the building without any omissions allowed by the standard.~~

The group discussed the points in favor and in opposition:

For
- Reduction in cost
- If over 4 st, full NFPA 13 system is required
- No bad experiences from code officials who have approved this alternative
- Sprinklered fire and amount of smoke generated
- Breaks up corridor into smoke compartments
- Smoke tenability is key concern for occupant evacuation

Against
- Increase in story height for combustible construction – no fire records to support
- Sprinklered R-1 and R-2 has very good record
- Sprinkler reliability after seismic event

This issue was tabled at dinner time. It was never re-visited.

The Thursday session did not start until approximately 12:30 pm. Certain members were uncomfortable with the direction of the group and the tone of the discussions which necessitated off-line discussions. Not all members participated in the off-line discussions and when the group reconvened at 12:30, some members voiced their dissatisfaction with how this was handled.

The group talked about possible mechanisms to get the word out to those interested. Staff noted that the only public comments to be considered by this group must be consistent with the scope of the original code change as this is a procedural requirement. A possible forum in Rochester was discussed. Staff noted this was not feasible as the only thing on the agenda at a Final Action Hearing is the hearings.

A motion was made, seconded and approved (not unanimous) to submit a public comment on G102 to address Group B and Types IIB and IIIB construction. G102 was identified as the only code change who's scope includes the occupancies listed in agenda item 5.2. As this was not unanimous, a further discussion ensued as the goal was to bring forward only unanimous decisions. After further discussion, the vote was taken again, with one against. The vote against was based on procedural grounds citing that we are only addressing one of the approved revisions noted in item 5.2. It was decided to move forward with the public comment to G102.

The group agreed that a further conference call was needed to finalize the reason statement for the public comment to G102. The call was set for January 23rd at 12:00 Eastern.

5.4 Meeting #3: 2006/2007 code changes
Not discussed.

6.0 Old business
None.

7.0 New business
7.1 Future of the H&A study group
See item 4.2 and Attachment A.

7.2 Relationship of H&A Study Group to the CTC BFP Study Group
See item 4.2 and Attachment A.

8.0 Future meetings, if any

March 28, 2007: 8 am – 4 pm; Atlanta

9.0 Adjourn

The meeting was adjourned at 5:15 pm on January 4, 2007.

Attachment A

Consensus Statements of H&A Study Group

PURPOSE: The concepts represented by these statements will serve as a foundation for our long term efforts.

STATEMENTS:

Process

1. Collaboration works better than confrontation to develop the code.
   a. Relationships matter and we should focus on the issue, with a willingness to listen and share perspectives, looking for win-win solution.
   b. The code can be improved more quickly and efficiently with collaboration.
   c. The code is a product of the governmental consensus code development process of ICC.
      i. The code development process should be reviewed for opportunities to increase collaboration.
      ii. If collaboration works best, it is encouraged as early in the process as possible

2. The code needs to work better as a system with well defined goals and objectives.

3. Code provisions should be based on a rational assessment.
   In the absence of a generally accepted system for measuring the overall level of safety of a building, code provisions should be based on a rational assessment, including factors such as technical, data, science, experience, cost and the needs of the stakeholders.

Content

1. The code is a living document and can always be revised to provide an improved level of safety for occupants, firefighter/emergency responders, the public, property, mission continuity, and public welfare.

2. Buildings should be looked at holistically. The interconnectivity of code provisions (building as a system) should be considered during building evaluation and code development.

3. Some changes to height & area provisions are recommended but they are not the core issue for improving building safety when considering adequate fire protection features, maintenance and inspection of such features, and emergency response.

RECOMMENDATIONS

The H&A Study Group is dedicated to the short and long term resolution of questions surrounding the issues raised in this area. The short term items fall short of a complete study of the subject due to the limitations of time available to fully explore the options. The Study Group is committed to a long term effort for a more complete analysis of the issue and therefore recommends that the CTC allow the study group to continue to investigate this issue.

Much of the discussion relative to building safety falls into the CTC area of study “Balanced Fire Protection” we recommend that the concerns raised by proponents of changes to the H&A provisions be addressed through continued improvement to code issues such as:

1. Exiting
2. Compartmentalization

3. Smoke Management
4. Sprinklering
5. Fire-Resistive Construction
6. Structural Integrity
7. Better Inspection and Maintenance Compliance

Integral to an examination of these issues is the identification of the goals and objectives of the code.

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DRAFT MINUTES

List of Attendees

Thom Zaremba	Firerated Glazing Industry
Tom Mewborne	AFG Industries
Mark Kluver	Portland Cement Association
Jeff Shapiro	International Code Consultants/NMHC
Gregory Keith	The Boeing Company
Kevin Kelly	NFSA
Farid Alfawakhiri	AISI
Ken Kraus	California Fire Chiefs
David Dratnol	Isolatek International
Bill McHugh	FCIA
Vickie Lovell	Intercode Inc.
Sarah Rice	Schirmer Eng.
Robert Polk	NASFM
Allison Crowley	NASFM
Ron Clements	VBCOA
Bryan Batiste	LA Co. FD
Ricky Lewis	LA Co. FD
Kurt Roeper	Ingersol Rand
Rich Schulte	Schulte & Assoc.
Stuart Tom	Cal. Chiefs
Christina Jamison	Ventura Co. Fire Dept.
Paul Heilstedt	ICC/CTC