ICC CODE TECHNOLOGY COMMITTEE

BALANCED FIRE PROTECTION – FEATURES STUDY GROUP (formerly Height & Area)
MEETING #5

March 28, 2007

DRAFT MINUTES

Embassy Suites Hotel – Atlanta Airport
4700 Southport Road
Atlanta, GA 30037

March 28: 8:00 am – 4:00 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 8:10 am on March 28th , 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, Sam Francis, Jim Messersmith, Ron Nickson, Larry Perry, Dennis Richardson, Emory Rodgers, Jerry Sanzone, Jon Siu, Rick Thornberry, Robert Wills

Non voting members present: Carl Wren

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

Staff liaison: Mike Pfeiffer

It was noted: Dennis Richardson had changed jobs, now works for Bureau Veritas; Kate Dargan was appointed California State Fire Marshal; California is ramping up its training; NASFM is no longer participating in this activity; Carl Wren is being nominated for CTC consideration as a voting member of the study group.

Going forward:

Short term:	2006/2007 cycle – Rochester Final Action Hearing in May
	2007/2008 cycle – code changes due August 20th
	Results in 2009 I-Codes
Long term:	2009/2010 cycle
	2010/2011 cycle
	Results in 2012 I-codes: long term height and area and items noted under Attachment A to the 1/3/07 minutes

Kate reviewed the study groups progress to date. See Attachment A.

2.0 Approve agenda

Approved as revised – adding item 8.1 Membership

3.0 Approve minutes of Meeting #4 January 3-4, 2007

Approved

4.0 Scope – Height & Area to Features

The study group has been reconstituted as "Features" to address balanced fire protection (BFP) issues beyond height and area. It is expected that the activities of the Features study group will complement and work in concert with those of the BFP Methodology study group. Features will focus on the details and the specific code issues.

5.0 Study group operating procedures

The group discussed the criteria to be used to define consensus in order for the study group to take action. Three options were discussed: simple majority; super majority (67% or 75%); unanimous. It was noted that requiring unanimity would allow for a single dissenting vote to stymie the activities of the group.

After a lengthy discussion, the following was agreed upon:

- 75% of the vote of those present and voting is required to move an item forward
- 50% of the study group must vote in the affirmative to move an item forward
- Co-chairs are entitled to vote and are considered part of those "present and voting"
- Email/letter ballots are acceptable. Determination to use these types of ballots subject to the discretion of the co-chairs
- Minority positions can be voiced by study group members at ICC hearings

Examples:

10 votes cast, with 75% in the affirmative = 7.5 < 9, insufficient number to pass
11 votes cast, with 75% in the affirmative = 8.25 < 9, insufficient number to pass
12 votes cast with 75% in the affirmative = 9 =9, sufficient number to pass

See Attachment B for approved procedures.

6.0 Height and area

6.1 2006/2007 cycle – Final Action Agenda

a. G102-06/07

b. Others

The group discussed how the study group would testify at the Rochester Final Action Hearings. Discussion points:

- Testify that change is needed (recommended) to the height and area provisions and the study group is continuing its investigation in anticipation of code changes next cycle.
- Noting that change is needed may be an overly broad statement
- Noting that change is needed does not infer that the current provisions are incorrect
- Supporting reason as agreed to by the study group to G102 notes that changes are forthcoming
- Publish a study group report for posting on the website and provide copies at the back of the hearing room in Rochester

The study group agreed to the following:

- In Rochester, request all height and area code changes to be moved back in the agenda order after G102
- Testify at G102 only; noting support for the study group's public comment and no support for any of the others. Testify that the group is investigating height and area code changes for the next cycle
- Publish a study group report for posting and provide copies in the back of the hearing

room

6.2 2007/2008 cycle (code changes due August 20, 2007)

a. Identification of discrepancies between IBC and maximum legacy values

Height: Robert Wills will develop a proposal for consideration at the next meeting: Types IIB and IIIB construction; Groups B, M, S-1 and S-2.

Area: Jim Messersmith presented the 1, 2, 3 story matrix dated January 9, 2007. Jim noted that this was developed at the request of the study group as a total building area assessment did not address some of the unique provisions in some of the legacy codes. During the discussion, it was noted that:

- During the drafting of the IBC, the drafting committee focused on a single criteria based on maximum legacy code building area and then "reverse engineered" the values to come up with the IBC values.
- As a result, discrepancies are sure to exist between maximum legacy values and the IBC.
- From a life safety standpoint, area is not as significant as height
- There may be some discrepancies for Type IIA and IIB for assembly H & A values primarily due to the differences in how the legacy groups classified these occupancies

The study group decided to retain the matrix as reference material but as a group, they are not going to develop area code changes based on this analysis. They will, however, review proposals submitted by any member of the group.

b. Height revisions Group R-1 and R-2 with smoke barriers

The group briefly reviewed the proposed table noted on item 5.3 of the January 3, 2007 minutes. Dennis Richardson will bring a proposal to the next meeting.

c. 20' automatic sprinkler height increase (G113 – 06/07)

The genesis of this proposal is based on the difference in approach taken by the BOCA National Building Code versus the Standard and Uniform Building Codes. BOCA had varying heights in each of the T503 cells while the other two had a single height based on type of construction. The group agreed to keep this issue on their agenda for consideration as a possible code change in the next cycle. Rick Thornberry will bring back a proposal for consideration at the next meeting.

d. Others

None identified.

6.3 Longer term

a. Height and area philosophy: Current provisions versus going forward
b. Compartmentation
c. Other
d. Develop work plan

General discussion on 6.3 a, b, c and d. The group noted the development of the NFPA 5000 annex which is based on a compartmentation philosophy. When evaluating such an approach, numerous code issues come into play, such as:

- travel distance

- sprinkler thresholds
- other fire protection thresholds such as fire alarms

The group decided there was a need to:

- Develop an occupancy vs building feature matrix
- Identify goals and objectives. Examples include:
  - ICC Perf code intent statement
  - Qualitative/Quantitative techniques
  - Define acceptable risk relative to building safety
  - NFPA 5000 chapter 4
  - Long term height and area philosophy paper being developed by the group, noting that the issue is not limited to just H&A

- Identify/define:
  - Sprinkler threshold
  - Egress threshold
  - Alarm threshold
  - Compartmentation threshold, if any
  - Max fire area threshold with consideration based on fire service standard first alarm response / IFC fire flow appendix

Relative to qualitative/quantitative techniques, Kate presented a Powerpoint dealing with Community Risk Management. The key components being:

- Probability and severity component
- Quantitative and qualitative analysis
- Risk reduction strategies
- Effective resource allocation

The risk analysis is weighted by different variables, including:

Access/egress	(*traffic circulation)*
Construction type	(*building is made of*)
Occupancy	(*building is use*)
Structure density	(*buildings close together*)
Population density	(*crowded neighborhood*)
High-rise	(*over four stories*)
Alarm system	(*noise and notification*)
Hazardous materials	(*reportable quantities*)
Lightning area	(*prone to lightning strikes*)
Wildland Urban Interface	(*hills and brush*)
Occupant age	
Occupant income	

Opportunities to inform the membership of on-going progress include:
- ICC training events at Annual Conference and Educational Codes Forum
- Website white papers
- ICC magazine

7.0 Other integral building safety systems

7.1 Identification of systems and issues

7.2 Develop work plan

See item 6.3.

8.0 Old business

8.1 Membership

Carl Wren's name will be placed before the CTC at their meeting on March 30th.

9.0 New business

None.

10.0 Future meetings

April 24 – 25: Phoenix (tentative)

April 24th: 1 pm – 5 pm

April 25th: 8 am – 4 pm

Agenda:

IBC H&A changes for 2007/2008 cycle
Develop report for posting and handout at Rochester
Height and area philosophy, future direction
Occupancy based features matrix
Fire service standard first alarm response

June 19: Cincinnati (subject to coordination with other study groups)

August 2 -3 tentative

11.0 Adjourn

The meeting was adjourned at approximately 4:50 pm on March 28th.

Attachment A

Renewed Purpose

Review:

Kansas City (Meeting 1): History of the H & A Chapter.
Discussion of the legacy code 'assumptions"
Key Assumption of "Non-Conforming" buildings
Switched focus to "how big is big"?

- looked at every Occ class and every construction type and identified max size for each code
- grouped in a table to answer how big is big (3 numbers/table representing the mzx size under each legacy code)
- picked largest number from each cell and made it the controlling factor
- looked at how to bring back to tabular areas
- each set of formulas (from legacy codes) was different and unacceptable to group
- all agreed to use the BCMC formula to bring back to tabular areas

Dave Collins picked up with NFPA's subsequent work during the NFPA 5000 drafting process:

NFPA 5000. Notable comments:

- They tried a "clean sheet of paper approach". Time constraints did not allow for the effort to be completed so they used H & A values from the IBC, except where NFPA 101 had specific provisions.
- An alternate approach based on compartmentation was developed and placed in the annex. There was not a high level of confidence in this approach
- Robert Wills: Tried to look at H&A scientifically, given the data limitations. Started with blank piece of paper but bogged down and ended up with what's in the IBC. They did come up with an approach but not a lot of confidence in result and it ended up in an annex. The problem was lack and quality of data indicating what is the problem and what isn't.
- Rick Thornberry: They ran out of time in development of a more scientific approach. The used NFPA resources and they crunched and re-crunched data but too many specifics missing and questionable data quality. They also looked at test data but most wasn't developed for this purpose or applicable to more than one occupancy or fire.
- Jim: NFPA 101 has height limits for some occs and those height limits were added to the table in NFPA 5000.
- Sam Francis: The alternate method was based on compartmentation – structural elements governed by characteristics of materials: how big a sprinklered and non-sprinklered compartment should be…looked at lots of factors, including fire department access, fire flow, etc. but ran out of time. Did find common ground on height (in terms of feet). Some of the numbers have found their way into I codes (e.g., 420' for super high rise).

Why are we here?

Dave asked each member to express why they are here? (remember, Laura is paraphrasing as she heard it)

Laura: Did an overview of our state process and findings that lead to the concern. Stated the biggest reasons to identify the real risk and definition of safe were to learn from others why this is ok with them.

Emory: State code official in VA. Here to share their experience in code development, including merging of the codes. Have several buildings in VA constructed under the I codes that are operated by the same folks that construct and own buildings in CA. Feels a few occs (M box warehouse, I-1 and I-4) may want to take a look at but most "work" from a social and economic stand point.

Dennis: Want to minimize amendments regionally and was concerned with the number of State amendments (but still maintain reasonable life safety). H&A was biggest topic. Example…IBC would allow an office building with sprinklers up to 5-story with no protection on steel members…UBC requires 2 hour protection. Too dependant on sprinklers, especially knowing it can be compromised and not just in CA (flood, etc.).

Rick: Representing the Alliance for Fire Protection and Control is interested in balance in the I codes. The Alliance focuses on the passive side…however, defined. Trouble with one-size fits all approach – regional code development worked well and participants were happy with product, despite no clear goals and objectives, everyone had a pretty good sense and where proven wrong, there was a code change. The merge changed the dynamics and sense of what's safe and no one really has a clear picture. He feels the citizens of CA wouldn't understand/expect the decrease in safety and not the right decision. Need reasonable balance between active and passive systems so not over reliant on one system.

Robert: Representing steel industry and their interests. Dennis's example is allowed in Southern Code, BOCA allowed 80% of that size and UBC allowed 35% of that size. Need to know what data justifies cutting their market out. Feels issue blown out of proportion in terms of life safety (maybe some adjustments to cells in table are warranted). With lack of data, decisions are reckless and careless. Bottom line is he has to answer to an industry.

Dave F.: Represents GSA but not Fed Gov (mostly office and courthouses). Maintain cost-effective construction with reasonable amount of safety. He's been asked over the years and could never answer the questions of why construction on East Coast is less expensive than on the West Coast…the reason was height and area. The NFIRS data is not good – not all depts. participate, lots not accurate or complete. Feels certain cells can be adjusted based on agreed upon data…e.g., adjust based on changes in fuel loading changing from when original table values were developed or fire loss stats.

Paul: Here to represent cement industry and their interests…echoes Robert's reason.

Jerry: BOs of FLA Code Development Committee which wants to decrease the number of state amendments and, therefore, bring changes to national process. 40 years of code experience and has worked with all the legacy codes. Codes are dynamic and need to meet needs of society. Need more than sprinklers. No water or power for a month or more after hurricanes…passive protection is warranted.

Larry: Historically, BOMA hasn't been active in H&A and has seen it as an industry fight for market share…it's been pretty balanced. Now, more people involved. Would like to see focus on what we have today and what's wrong with it?? Many areas are constructing with these codes following statewide debates, including FLA and NY. Not just numbers in a table but systematic approach. Find out what comfort level of those building structures under UBC…. He represents an org that wants to know why numbers are changing. We also need to remember there are area of the code that are more restrictive than our legacy codes, such as alarms.

Sam: same issue as Robert Wills – client interest (wood).

Ron: Represents apt industry and has sat through most of the hearings from the beginning, listening to

BOs debate that their provisions were best. Feels the new code contains the best provisions of each legacy code and the process has weeded out unnecessary provisions. Feels the result is a safe, cost effective code for multifamily. Feels apartments have balance (1 hour between units; 30 min with 13-R) and only get an additional story with 13-R (his main issue). Other "trade-offs" are really design choices, e.g., draft stops reduced with sprinklers is an incentive to sprinkler. Based on fire data, there is nothing wrong with apt buildings nationally,

Jim N.: NASFM rep for 50 state fire officials (recently retired from his state post). He has no real background and wants to hear from others--has an open mind. Look at it from public safety and FF safety perspective.

Carl: Working in code development since 1974 and in his early years, went to all three legacy code processes to observe differences based on regional difference, culture, and market influence. Feels the diffs seen now will diminish over time…H&A not all that important to life safety and property protection. Like most FPEs, would like to use a scientific method and he feels we have the U.S. as a lab…these buildings exist. If they work, why not allow them nationally. The committee's issues are 1) consensus on code change for January; 2) opportunity for long term resolution to the entire issue (continue after Jan). Problem is that no code had the goals stated and if we can state them, may make progress. In 1982, did some work for Dallas FM who wanted to get a sprinkler ord for anything over 7500 sqft. He got grant from US Fire Admin to fund a study to identify cost incentives to pay for sprinklers…looked at loss history, growth rate, etc. Schirmer got contract and made 56 change proposals (55 adopted…R-3 sprinks kicked out), including revisions to H&A where they decided height was the only real issue there. (handout out of 3 pages of the report, including table of H&A revisions). Can't just look at H&A, need to look at sprinkler and alarm provisions which are more restrictive…feels buildings under the I codes are better in terms of life safety and property protection.

Jon: Here on invitation to support effort (non-voting but working). Seattle struggled with this issue on adoption and concluded that different is not better or worse. Bought into argument for no non-coformity of existing building stock. Did hope the same argument would apply to other areas where IBC is more restrictive than UBC, e.g., open stairs between two levels. State adopts codes and allows local amendments and Seattle did amend to allow one extra story in Type V-A (5 stories but no extra feet or height). Issues are in III-A, II-A, where they are maxing out the sizes (previously saw only V-A and Type I)...5 stories 75' above ground of wood. Another issue is B occ labs where they want taller Type V. Hopes to get some background to use as justification.

Dave: Graduated in 1973 and licensed in 1975. BO in 1977 and went through change in Ohio's building code from homegrown to BOCA model code. The codes changed from a passive dominated code to active dominated code with horrendous ramifications. Major industries and schools went to legislature to get laws to change code so he understands what can happen. Has worked for PCA and AF&PA and now works for AIA. Tired of this issue and hopes this collective effort eliminates the divisiveness in the future. Feels industry issues are key and hopes we can find the magic answer that hasn't surfaced before.

Kate: Reasons she felt compelled to talk to Dave and bring this group together: 1) CA process which is very political and still controversial…wanted to bring to national forum to see if we're right or, if not, why not; 2) wanted to bring CA fire service to ICC process and continue evolution of joint fire and building voice, including a fire operations perspective, both of which may impact the organization; 3) build coalition for future issues that may cause turbulence…have the relationships in place to smooth the turbulence. Long term goal is to improve public safety and determine acceptable level of risk and safety for nation; get better data nationwide; shape battlefield between code portion of fire service and operational side; long term health of ICC where regional diffs or diffs between building and fire might tear it apart.

Kansas City/Meeting 1 Goals:

For next time:

1) Is there a problem? What is it? What's the goal?
2) What should the process be: 1) organized debate to resolve conflict and reach a negotiated settlement; or, 2) team with a problem to solve?

Chicago/Meeting #2:

Primary work focused on comparison of the legacy codes and cranking out the max footage and height formulas under the three legacy codes and IBC. Major pain and confusion…came to conclusion that current H and A Table with trades, modifiers, "if this, then that's" is complicated and may be outdated! (Kate's opinion) Discussed again the NFPA 5000 work:

Dave called on Bill Koffel from the audience who chaired the NFPA 5000 H&A task group and gave an overview of their work:
They looked at an alternative approach that could be more rationally supported than what's in legacy codes. They came up with a methodology that increased compartmentalization w/in building and decreased emphasis on overall H&A.

- Number of stories was called a life safety issue and they defaulted to Life Safety Code – if unlimited in that code, building code didn't a different limit.
- Building height was FD access issue – all legacy codes were pretty much same so not much of an issue…just incorporated.
- Building area was changed to an area of a compartment where a fire may occur; certain size that can be controlled by FD. Sprinklers increase compartment size which is occupancy specific and based on NFPA data (which occs had fire spread beyond floor of origin). Used as basis for multiplier. They also had a max number of compartments/building (based on occupancy).

Different approach but compartments are what's really missing in IBC (so building becomes compartment – large fire size potential)). Maybe that approach will work? (Published as Annex D to 2006 NFPA 5000.)

Philosophy

Kate took the conversation to a broader level by asking:

What is the philosophy in terms of community design, building density, and economics – why are buildings allowed the way they are and what type of communities are being created, e.g., increase height? density? Deliberate?

- Robert: the exceptions are there to meet society demands, e.g., podiums drove exception to height. Meet societal needs in *an ad hoc manner*
- Carl: Building code isn't deliberately doing anything one way or another along that line…that's what zoning laws are for. The code concentrates on how to build it safely.
- Jon: land use decisions do drive building code at times (in Seattle, at least). Code stuff is result of planning decisions.

- Dave: we have diminishing opportunities related to resource availability and that has an influence on the building code that will continue.
- Sam: building code shouldn't drive policy (like a tax code – encouraging some things and discouraging others) but also shouldn't prohibit a choice in one direction or the other – just address risk and direct how to do it safely.
- Rick: Agreed with Carl but also stated there is no overriding policy in the code…it's crude and just a mismatch of stuff from various legacy codes…to think otherwise is giving it too much credit.
- Kate: emerging philosophy related to resource availabilities…code becoming more proactive in addressing rather than simply reacting to a need/demand that presents itself.
- Robert: just look at what's taking time in hearings—not life safety: service issues (accessibility, energy, etc.). Scope of code is creeping.
- Sean: Shouldn't there be a central intelligence to the code?
- Karl: There is an influence to codes that has nothing to do with safety, e.g., Austin City Council said no openings looking into parking garages….directive to fix the code.
- Greg Keith: purpose is written in the scope of code BUT the IBC is an amalgamation of codes that, basically, had the same mission. The creation was *legally* driven in that the guiding principle was to ensure no existing building was out of compliance.
- Sarah: Rational, logic, sense and order to code and development process would be nice but it isn't there. There is no single overriding philosophy…it's reactive and low probability we'll ever get to one

What's changed due to changes in height and area, e.g., drive prevalence of different type of construction? Deliberate?

- Sam: Type III, IV, and V do have more potential in some areas of country
- Robert: Agreed with drafting committee philosophy and thought it was valid for all trades, not just steel….no intent to gain a market share over another
- Jon: Do see more II and III in IBC than the I and V they mostly saw with UBC but probably due more to other issues, e.g., rot (wood)
- Jerry: markets develop based on product availability (and economics/labor) more than code
- Rick: height and degree of fire resistance is a driver in larger buildings – wood only goes so high as harder to protect so market goes to steel
- Carl: decisions are based on cost, e.g., steel fabricated and brought to site and if the wait is too long, owner may switch to pre-cast concrete. Code is secondary for large projects. For smaller, there may be some influence.
- Robert: agrees with Carl…less steel on West coast so see less.
- Gary Keith: code gives a pallet to the design professional…use it based on type of building desired: temp, tall, etc.
- Marshal: cost difference, e.g., between wood and steel, has big influence in some use groups
- Jim M: our agenda is protecting people and property and shouldn't try to accommodate other agendas (LEED); cost of construction shouldn't weight into meeting code goals ….codes started to stop conflagration. When we moved to suburbs, no problem with buildings and lost sight of issue. Now, attempt to prevent sprawl and moving back to urban and could have the old problem with multiple buildings burning down. Need to remember property protection is also important, despite huge focus on life safety only at the code hearings. Usually only hear of contents and evacuation and getting people out safety.
  Vicki: problem is that there is no functional statement of what code is attempting to accomplish and until there is some consensus on what it is/should be…this will continue

Group did an exercise to ID key IBC safety concerns. Results as follows"

TOP TIER [5- 8 votes]

1. Large non rated bldgs of 4 and 5 stories [8: TOC specific issue]
2. Impact of H&A on fire service – delivery of services (ie handle the fire - operations) & FF safety [7: Fire service issue]
3. Impact of taller bldgs (stories and feet) – legacy vs IBC [6: Big picture]
4. What is the objective of the H&A provisions? What are they trying to accomplish [6: Big picture]
5. Water supply issues in high seismic areas – impact on H&A – reliability of water supply. Other natural disasters such as Hurricanes, tornado- Need redundancy? Difference between redundant and layered systems? [5: H&A modifiers]

NEXT TIER [3-4 votes]

1. ID anomalies that went into table that differed from drafting philosophy…ie, A-2/2B TOC and explanation of why [4: Occupancy specific issue]
2. Impact on life safety – area vs height [4: Big picture]
3. Identification of the fire problem [4: Big picture]
4. Compartmentalization for smoke and fire [3; Compartmentation]
5. Very tall bldgs - 150' – impact on fire fighters (FF) and egress – breakpoints [3: Fire service issue]
6. Evaluate impact on sprinkler trade-offs to structural fire resistance – ie too much/too little credit? [3: H&A modifiers]

This led to a general discussion on the nature of the height and area code changes since the drafting stage:

- Consensus has been reached via the code change process, not all agree, therefore more code changes
- Some disagree with the general philosophy taken by the drafting committee
- Hearing process not conducive to large/controversial issues such as height and area – leads to more code changes
- IBC has gained attention and as such, more interested parties are participating
- Code change process is dynamic and ever changing, not just for height and area but for many issues
- For the most part, the drafting committees were comprised of code officials. The code development process has significant industry participation
- It's not just H&A, ratings seem to have been reduced due to more emphasis on active fire protection.

Chicago/Meeting #2 Goals: To walk away with a clear concept of the consensus opinion in Phoenix so various reps can go back to their group for agreement…draft the public comment in Orange County.

<u>Phoenix/Meeting #3</u>

The devilish details emerged – discussion with proposals on:

1. Height Limitations on 4 and 5 Story unrated construction (Willis)
2. Table 503 Anomalies
3. "I" Occupancies
4. CA and the IBC Process
5. Long-Term (H and A Purpose) Draft Report (Baldassarra)
6. Specific Code Proposal Review

After all that discussion, the group had a beginning consensus on the 4/5th Story proposal and a desire to continue with Table 503 and the other issues.

Orange County/Meeting #4:

Key issues emerged including:

Overall Direction: Are we going where we meant to? Why is this so contentious?

Kate recapped the process to date, including our setback at the end of the last meeting. Our group has several goals but primarily communication and respect. The ICC process is one of win-lose, which does not foster those goals. However, we have an opportunity to change that. She read from the Tao of Leadership…concepts to keep in mind as we move forward:

- There should be nothing to win or lose in group work
- Unfolding process – let the group dynamic be rather than trying to control it

Dave added that he feels the meetings to date have been a success with the representative members in leadership positions sharing a desire to work together toward common goals – identification and progress. H&A has become a focal point but is not the real issue and we need to identify what that is. We need to decide what our future course of action and focus should be.

Discussion on short and long term issues

Short Term issues identified thus far (to be handled during the 2009 cycle if unable to submit as public comments this cycle)

1. anomalies – Table 503
2. 4 and 5 story non-rated buildings (Wills)
3. R-1 and R-2 concepts (Dennis)
4. I occupancies (NASFM)
5. 20 extra feet in height (G113 - Thornberry)
6. status of the "other" code change proposals

Carl asked if all the code change proposals on H&A are part on the short term list? No, not all of them have been addressed by group so not on the table

Long Term Recommendations -- see list from meeting 2, which includes:

1. Status of this group and process
2. compartmentalization
3. need for area limits in Table 503 (linked to 2)
4. maintenance and inspection processes
5. smoke management
6. impact of natural hazards (wind, seismic, etc.)
7. philosophy of codes

Statement:

Action Items

"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."

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 ~~may be~~ <u>are recommended</u> ~~necessary~~ 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. ("this issue" refers to H&A)

Much of the discussion relative to building safety falls into the CTC area of study "Balanced Fire Protection" (motion to delete that first sentence was denied on a split vote). 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 (WTC looking at it)
2. Compartmentalization (BFP)
3. Smoke Management (BFP)
4. Sprinklering (BFP)
5. Fire-Resistive Construction (BFP)
6. Structural Integrity (WTC)
7. Better Inspection and Maintenance Compliance (WTC, limited)

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

Attachment B

CTC Balanced Fire Protection – Features Study Group

Rules and Procedures
(Approved March 28, 2007)

The height and area study group has been given the opportunity to move forward with the broader discussion that we have requested. Because the work is no longer focused on simply height and area, the study group has been renamed to better reflect the directions we have established - FEATURES. Our charge is to focus on development of code changes based on the information brought forward through the height and area code changes. Balanced Fire Protection is an established topic of an existing CTC Study Group and we are not attempting to usurp or duplicate any of that group's efforts.

Study Group Membership and Participation

Membership
Voting members of the Study Group are appointed by the CTC. Non-voting members are able to work as part of the Study Group, but are not able to vote on final decisions of the Study Group. Alternates are permitted, but should come prepared with the background information and history of the subjects to be discussed at a particular meeting.

Chair
The chair of the Study Group shall be as appointed by the Chair of the CTC.

Participation
Participation at the meetings of the Study Group is open, but non-members in the audience will be limited in their participation by the chair to facilitate discussion and decision making by the Study Group.

Proposed Structure for Action
Agenda items should be submitted to ICC staff at least 2 weeks prior to the scheduled meetings of the Study Group. Anyone is welcome to submit a proposed action item.

In order to be fair to all proposed subjects for review, each meeting will have an agenda of specific items that will be discussed, beginning with those that were still on our agenda at the last meeting, but were not resolved. The time available for discussion of each topic will be outlined as part of the agenda and the Study Group will not vary from that time line except if a topic does not consume its allotted time. Should a decision not be reached on a topic within the time allotted, the topic will be carried forward to the next meeting of the Study Group.

The form of proposals should take their cue from the requirements for code changes and provide the text and supporting statement for the change to help the Study Group focus on the issues the proposal is intended to address.

ICC CODE TECHNOLOGY COMMITTEE

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

DRAFT MINUTES

List of Attendees

Gregory Keith	The Boeing Company
Bill McHugh	FCIA
Vickie Lovell	Intercode Inc.
Ron Clements	VBCOA
Rich Schulte	Schulte & Assoc.
Paul Heilstedt	CTC
Dave Tyree	AF&PA