

# FLOOD RESISTANT STANDARDS WORKGROUP REPORT TO THE FLORIDA BUILDING COMMISSION



March 25, 2009

*Tampa, Florida*

Facilitation, Meeting and Process Design By



CONSENSUS SOLUTIONS

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# FLORIDA BUILDING COMMISSION

## FLOOD RESISTANT STANDARDS WORKGROUP REPORT

### OVERVIEW

At the request of the Florida Division of Emergency Management (DEM) the Florida Building Commission convened a Flood Resistant Standards Workgroup charged with developing recommendations for integrating the International Code Series (I-Codes: IBC, IRC, etc.) flood damage-resistant provisions (for buildings and structures) in the Florida Building Code. FEMA has worked with ICC for the past 10 years on flood standards for buildings that are consistent with the requirements of the National Flood Insurance Program (NFIP), and the current I-Codes reflects these standards. When the 2001 Florida Building Code (First Edition) was developed a policy decision was made, primarily for administrative reasons, to eliminate flood standards from the foundation model code and continue the practice of relying on Floodplain Management Ordinances adopted by communities participating in the National Flood Insurance Program. In addition, the DEM has requested that the policy be reviewed, that identified administrative issues be resolved, and that the I-Code flood standards be retained in the 2010 FBC. The Commission will conduct this facilitated stakeholder process beginning in March of 2009, with adopted recommendations submitted as code amendments for the 2010 Florida Building Code Update process.

Raul L. Rodriguez, AIA, Chair of the Florida Building Commission, has made the following appointments to the Flood Resistant Standards Workgroup. Members are charged with representing their stakeholder group's interests, and working with other interest groups to develop consensus package(s) of recommendations for submittal to the Commission.

<b>Member</b>	<b>Representation</b>
Miles Anderson	Florida Department of Emergency Management (FDEM)
Bob Boyer	Local Government
Gene Chalecki	Florida Department of Environmental Protection (FDEP)
Nick D'Andrea	Florida Floodplain Managers Association (FFMA)
Eddie Fernandez	Miami-Dade County Code Compliance Office
Jack Glenn	Florida Home Builders Association (FHBA)
Steve Pizzillo	Building Officials Association of Florida (BOAF)
Bud Plisich	Federal Emergency Management Agency (FEMA Region IV)
Tim Reinhold	Institute of Building Home Safety (IBHS)
Jim Schock	City of Jacksonville
Tim Tolbert	Santa Rosa County

### Meeting Schedule, Starting Time, and Location

March 25, 2009	9:00 AM	Tampa, Florida	RACCA, 1920 East Sligh Avenue
April 29, 2009	9:00 AM	Tallahassee, Florida	Betty Easley Conference Center
May 29, 2009	9:00 AM	Tallahassee, Florida	Betty Easley Conference Center

## REPORT OF THE MARCH 25, 2009 MEETING

### Opening and Meeting Attendance

The meeting started at 9:10 AM, and the following Workgroup members were present: Miles Anderson, Bob Boyer, Gene Chalecki, Nick D'Andrea, Eddie Fernandez, Jack Glenn, Bud Plisich, Tim Reinhold, Jim Schock, and Tim Tolbert.

### Members Absent

Steve Pizzillo

### DCA Staff Present

Mo Madani and Jim Richmond.

### Project Technical Consultant

Rebecca Quinn

### Meeting Facilitation

The meeting was facilitated by Jeff Blair from the Florida Conflict Resolution Consortium at Florida State University. Information at: <http://consensus.fsu.edu/>



### Project Webpage

Information on the project, including agenda packets, meeting reports, and related documents may be found in downloadable formats at the project webpage below:

<http://consensus.fsu.edu/FBC/Flood-Resistant-Standards.html>

### Agenda Review and Approval

The Workgroup voted unanimously, 9 - 0 in favor, to approve the agenda as presented including the following objectives:

- ✓ To Approve Regular Procedural Topics (Agenda)
- ✓ To Review Workgroup Procedures, Guidelines, and Decision-Making Requirements
- ✓ To Hear an Overview of the Workgroup's Scope and Charge, and Task Development Strategy
- ✓ To Hear a Presentation on Key Issues Regarding Flood Resistant Standards Integration
- ✓ To Review and Discuss Pre-Meeting Survey Results
- ✓ To Identify Issues and Options Regarding Integrating and Adopting Flood Resistant Standards in the Florida Building Code (Code)
- ✓ To Discuss and Evaluate Level of Acceptability of Proposed Options
- ✓ To Consider Public Comment
- ✓ To Identify Needed Next Steps and Agenda Items for Next Meeting

## **Review of Commission’s Workgroup Meeting Guidelines, Consensus-Building and Decision-Making Process, and Sunshine Requirements**

Jeff Blair, Commission Facilitator, reviewed the Workgroup’s process, decision-making procedures, and applicability of the Sunshine Law and answered member’s questions. The relevant documents were provided on pages 4 – 7 of the meeting agenda packet.

## **Review of Workgroup’s Scope and Charge**

Jeff Blair, FBC and Project Facilitator, explained the scope of the Workgroup as follows: At the request of the Florida Division of Emergency Management (DEM) the Florida Building Commission convened a Flood Resistant Standards Workgroup charged with developing recommendations for integrating the International Code Series (I-Codes: IBC, IRC, etc.) flood damage-resistant provisions (for buildings and structures) in the Florida Building Code. FEMA has worked with ICC for the past 10 years on flood standards for buildings that are consistent with the requirements of the National Flood Insurance Program (NFIP), and the current I-Codes reflects these standards. When the 2001 Florida Building Code (First Edition) was developed a policy decision was made, primarily for administrative reasons, to eliminate flood standards from the foundation model code and continue the practice of relying on Floodplain Management Ordinances adopted by communities participating in the National Flood Insurance Program. In addition, the DEM has requested that the policy be reviewed, that identified administrative issues be resolved, and that the I-Code flood standards be retained in the 2010 FBC. The Commission will conduct this facilitated stakeholder process beginning in March of 2009, with adopted recommendations submitted as code amendments for the 2010 Florida Building Code Update process.

## **Key Flood Standards Integration Issues Overview**

Rebecca Quinn, project technical consultant, provided members with an overview of key project issues and answered member’s questions. Rebecca noted that all of the relevant project background documents had been provided to members in advance of the meeting.

## **Pre-Meeting Survey Results Review and Discussion**

Jeff Blair, Commission Facilitator, reviewed the Pre-Meeting Survey Results and answered members questions. Survey results may be reviewed at the project webpage as follows:

<http://consensus.fsu.edu/FBC/Flood-Resistant-Standards.html>

## **Identification of Issues Regarding Integrating Flood Resistant Standards in the Code**

Jeff Blair, Commission Facilitator, reviewed the Survey results and invited members to identify additional key issues regarding developing recommendations to the Commission for integrating flood resistant standards into the Florida Building Code. In addition, members of the public were invited to provide input on same.

## **Threshold Issues**

*On balance, should the Commission adopt/incorporate Flood Resistant Standards into the Florida Building Code.*

*Summary of Member's Discussions:*

Members felt that the Commission should incorporate flood resistant standards into the Florida Building Code—within each of the respective codes.

*What should the Base Code for FBC Flood Provisions be—Should the base standards be the provisions found in the IBC including ASCE 24.*

*Summary of Member's Discussions:*

Members felt that the I-Code provisions should be used as the basis for inclusion of flood provisions relevant to buildings and structures into each of the respective codes (FBC). In addition, Members supported adopting ASCE 24 (Flood Resistant Design and Construction Standards) by reference as the flood provisions in each of the codes (FBC).

*Should the Workgroup focus on only buildings and structures for the 2010 Code Cycle.*

*Summary of Member's Discussions:*

Members felt the Code should only contain provisions for building and structures and other flood provisions should be handled at the local level via a local companion ordinance.

*How should Appendix G (IBC—Flood Resistant Construction) be handled.*

*Summary of Member's Discussions:*

Members felt that on balance this is an issue for local jurisdictions and would be handled between the Code flood standards provisions and the companion ordinance approach.

*Should local jurisdictions be allowed to adopt higher standards than the base standards.*

*Summary of Member's Discussions:*

Members supported allowing local jurisdictions to adopt higher standards for flood resistance provision to address local concerns within the Code (based on local flood studies), to ensure local's ability to be eligible for the NFIP's Community Rating System.

*What should the strategy be for handling inconsistencies between the Coastal Construction Control Line (CCCL) and flood provisions.*

*Summary of Member's Discussions:*

Members felt that inconsistencies between the CCCL and V Zone requirements shall continue to be resolved at the local level, and on a case-by-case basis.

*Should variances to flood resistant standards be allowed, and if so how.*

*Summary of Member's Discussions:*

Members agreed that the Code does not allow variances, and local jurisdictions would handle this within the context of the companion ordinance approach.

*Should it be permissible for flood resistant standards to be administered outside of building departments.*

*Summary of Member's Discussions:*

Members felt that on balance this is an issue for local jurisdictions and it would be handled by the combination between flood standards provisions incorporated in the Code and the companion ordinance.

## **Identification, Discussion and Evaluation in Turn of Issues and Options Regarding Integrating Flood Resistant Standards in the Florida Building Code**

Members were requested to identify, discuss and evaluate a range of options regarding development of flood resistant standards for the Florida Building Code recommendations for submittal to the Commission. In addition, members of the public were invited to provide input on same. For each of the key topical issue areas, member's were asked to identify a range of potential options for the Workgroup to consider. Issues and Options were organized to address the key issues regarding integration of Flood Resistant Standards into the Code. A preliminary list of options was drafted using the results of the pre-meeting survey, and the Workgroup was requested to discuss and add any additional relevant options they deem appropriate. When available, staff will provide information from data collections, research studies, and other pertinent sources to the Workgroup. Members and staff were encouraged to request any information they feel necessary for evaluating an issue, option or range of options. Once ranked by the Workgroup, options will be listed within relevant key topical issue areas, in descending order of initial support as indicated by the initial acceptability ranking. Options with 75% or greater number of 4's and 3's in proportion to 2's and 1's shall be considered consensus draft recommendations. Members of the public were also invited to provide feedback and options for evaluation.

The Results of the Options Ranking Exercise and relevant comments and discussion are included as Attachment 3 of this Report.

*(Attachment 3—Options Evaluation Exercise Results)*

### **Options Achieving Consensus Level of Support After Initial Ranking**

*The I-Code provisions should be used as the basis for inclusion of flood provisions relevant to buildings and structures into each of the respective codes (FBC).*

*Adopt ASCE 24 (Flood Resistant Design and Construction Standards) by reference as the flood provisions in each of the codes (FBC).*

*Allow local jurisdictions to adopt higher standards for flood resistance provision to address local concerns within the Code (based on local flood studies), to ensure local's ability to be eligible for the NFIP's Community Rating System.*

*Seek a legislative exception so that local CRS (higher flood resistant standards) would not be subject to the local technical amendment requirements of the Code, subject to a consistency review with updated editions of the code.*

*Develop a model "companion" ordinance that includes NFIP-consistent administrative provisions and includes NFIP requirements for development other than buildings and structures that are not within the scope of the Code. Also, include a list of more stringent requirements that local jurisdictions could consider for possible adoption.*

*Inconsistencies between the CCCL and V Zone requirements shall continue to be resolved at the local level, and on a case-by-case basis.*

*Recommend a strategy for determining whether any inconsistencies between the CCCL and V Zone requirements can be resolved by code changes in the next code cycle (i.e., coordination between FBC, DEP, DEM, FEMA).*

### **General Public Comment**

Members of the public were invited to provide the Workgroup with general comments. In addition, members of the public spoke on each of the substantive discussion issues before the Workgroup throughout the meeting.

*Public Comment:*

No public comment was offered.

### **Review of Workgroup Delivery and Meeting Schedule**

The Workgroup will be meeting as follows:

March 25, 2009 in Tampa; April 29, 2009 in Tallahassee; May 29, 2009 in Tallahassee

The delivery schedule is as follows:

### **Evaluate Adoption of Flood Standards in the Florida Building Code**

*Schedule:*

Workgroup appointed	12/08
DEM contract with FSU/FCRC	1/09
Workgroup meetings	3/25
	4/29
	5/29
Recommendations to Commission	6/09
Proposals for 2010 FBC submitted for adoption	12/09

### **Next Steps: Agenda Items, Needed Information, Assignments, Date and Location**

The Workgroup requested the following:

- Jim Richmond to review how flood map adoption is currently handled and develop recommendations for the Workgroup.
- Residential volume clean-up.
- Draft model ordinance.
- Staff to provide draft of 2009 I-Code text modified per Workgroup's decisions.
- Members are to send draft options to Jeff Blair for incorporation in Worksheet.

### **Adjournment**

The Workgroup voted unanimously, 9 – 0 in favor, to adjourn at 2:00 PM.

**ATTACHMENT 1**  
**MEETING EVALUATION RESULTS**

**March 25, 2009—Tampa, Florida**

*Average rank using a 0 to 10 scale, where 0 means totally disagree and 10 means totally agree.*

**1. Please assess the overall meeting.**

- 9.7 \_\_\_ The background information was very useful.
- 9.7 \_\_\_ The agenda packet was very useful.
- 9.6 \_\_\_ The objectives for the meeting were stated at the outset.
- 9.2 \_\_\_ Overall, the objectives of the meeting were fully achieved.

**2. Do you agree that each of the following meeting objectives was achieved?**

- 9.7 \_\_\_ Review of Workgroup Procedures, Guidelines, and Decision-Making Requirements.
- 9.6 \_\_\_ Overview of the Workgroup's Scope, Charge, and Task Development Strategy.
- 9.4 \_\_\_ Presentation on Key Issues Regarding Flood Resistant Standards Integration.
- 9.4 \_\_\_ Discussion of Project Tasks and Identification of Information Development Needs.
- 9.7 \_\_\_ Identification of Issues Regarding Integrating Flood Resistant Standards in the Code.
- 9.7 \_\_\_ Identification of Issues and Options Regarding Integrating Flood Standards in the Code.
- 9.4 \_\_\_ Identification of Next Steps.

**3. Please tell us how well the Facilitator helped the participants engage in the meeting.**

- 9.6 \_\_\_ The members followed the direction of the Facilitator.
- 9.7 \_\_\_ The Facilitator made sure the concerns of all members were heard.
- 9.6 \_\_\_ The Facilitator helped us arrange our time well.
- 9.7 \_\_\_ Participant input was documented accurately.

**4. Please tell us your level of satisfaction with the meeting?**

- 9.7 \_\_\_ Overall, I am very satisfied with the meeting.
- 9.8 \_\_\_ I was very satisfied with the services provided by the Facilitator.
- 9.7 \_\_\_ I am satisfied with the outcome of the meeting.

**5. Please tell us how well the next steps were communicated?**

- 9.4 \_\_\_ I know what the next steps following this meeting will be.
- 9.4 \_\_\_ I know who is responsible for the next steps.



**6. What did you like best about the meeting?**

- How well the meeting was organized, “Great job, Jeff.” Thanks.
- Direction of the facilitator.
- Good communication and review of concerns before voting took place.
- Great exchange of opinion and information, good cross-sectional group.

**7. How could the meeting have been improved?**

- Location of next meeting.
- Is it possible to try web-casting for meeting? Just a thought.

**8. Member Evaluation Comments.**

*None were provided.*



**ATTACHMENT 3**

**OPTIONS/RECOMMENDATIONS EVALUATION RESULTS**

**Overview**

For each of the key topical issue areas, members were asked to review existing options and invited to propose additional options for Workgroup consideration. The worksheet was organized by key topical issue areas with relevant options for each, regarding addressing key issues for incorporating flood resistant standards into the 2010 Florida Building Code. A preliminary list of options was drafted, and the Workgroup was offered opportunities to propose any additional options they deem appropriate. When available, staff provided relevant information from data collections, research studies, and other pertinent sources. Members were requested to identify any information they feel necessary for evaluating an issue, option or range of options. Once ranked by the Workgroup, options will be listed within relevant key topical issue areas, in descending order of initial support as indicated by the initial acceptability ranking. Options with 75% or greater number of 4's and 3's in proportion to 2's and 1's shall be considered consensus draft recommendations.

For each key topical issue area the following format was used:

- Background documents were provided (if available on the topic),
- General discussion with Workgroup members on the topic/issue,
- Identification of new options (if any),
- Refinements proposed to existing options (to enhance option's acceptability, if possible),
- Acceptability ranking of options (new, those with some level of support from previous meeting(s), and those a Workgroup member proposes to be re-evaluated),
- Additional data/research needs identified, as needed.

The following scale was utilized for the ranking exercises:

<b>Acceptability Ranking Scale</b>	<b>4 = acceptable, I agree</b>	<b>3 = acceptable, I agree with <i>minor reservations</i></b>	<b>2 = not acceptable, I don't agree unless <i>major reservations</i> addressed</b>	<b>1 = not acceptable</b>
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## 1. FLORIDA SPECIFIC REQUIREMENTS—SPECIFIC CODE PROVISIONS

*The I-Code provisions should be used as the basis for inclusion of flood provisions relevant to buildings and structures into each of the respective codes (FBC).*

	<i>4=acceptable</i>	<i>3= minor reservations</i>	<i>2=major reservations</i>	<i>1= not acceptable</i>
<i>Initial Ranking</i> <i>3/25/09</i>	<b>9</b>	<b>1</b>	<b>0</b>	<b>0</b>

### **Member’s Comments and Reservations (March 25, 2009):**

- JG: FHBA proponent of base code. If FEMA has input to IBC & IRC and supports current version, behoove to use as starting point, unless there is a specific Florida need. Already have too many Florida specific amendments, in favor of not reinventing.
- JR: to extent possible utilize the I-Codes, dovetails with Commission requirements to use models as starting point.
- JS: agree in principal, I-Code does have Chapter 11 accessibility, may need some integration with FBC accessibility requirements.
- BB: agree we should use I-Code, if vetted by FEMA, good starting point. Have to move forward.
- TT: First & second look the same. Or point to ASCE 24 from IRC?
- JG: keeping philosophy of residential, intended to be freestanding, allow use w/o RDP, look at the flood in IRC, rather than ASCE 24. If FEMA approved IRC provisions, then we should use.
- EF: does ASCE 24 apply to residential? That portion of residential not applicable to HVHZ, add ASCE 24 for HVHZ.
- MM: the way structured in FBC, Chapter 31 applies to HVHZ, would be covered. Residential code has same language. Correlate with appropriate sections.
- JG: residential Chapter 3 applies to HVHZ and rest, so that should handle it
- TR: how confident are we that the prescriptives in IRC at least meets 24?
- RQ: explained difference between CAZ in NIFP, 24, and IRC.
- BP: cleaner to use I-Codes as base; reduce below would impact BCEGS and potentially CRS credits for statewide code (adoption of family of I-Code based codes).
- JS: minor reservation (3), we need to be careful to capture accessibility statutory requirements. The criteria in 24/IBC 1107 consistent with FL accessibility.
- JG: accessibility requirements only apply to those that require statutory accessibility in the building code (not residential).

*Adopt ASCE 24 (Flood Resistant Design and Construction Standards) by reference as the flood provisions in each of the codes (FBC).*

	<i>4=acceptable</i>	<i>3= minor reservations</i>	<i>2=major reservations</i>	<i>1= not acceptable</i>
<i>Initial Ranking</i> <i>3/25/09</i>	<b>7</b>	<b>3</b>	<b>0</b>	<b>0</b>

### **Member’s Comments and Reservations (March 25, 2009):**

- JG: is adopted “by reference” an alternative to what is in Chapter 31?
- MM: what’s in Ch 31 (for flood, which now points to local ordinances) would go away, would have provisions primarily in Chapter 16.
- JG: which code – FBC or the 2009 I-Codes is the basis we’re starting with?
- JR: anticipate work from 2009 is the basis for the next cycle.

- MM: Starting point is the 2009 I-Codes, normally have FL specific requirements. Previously have stripped out flood provisions.
- NDA: What’s the relationship between ASCE 24 and the IRC?
- JG: 24 is an effective alternative to prescriptive.
- EF: point out for HVHC, to adopt 24 for residential and put reference to ASCE 24 in appropriate sections, since already require RDP (i.e., don’t use prescriptive in HVHZ).
- JG: that’s a decision for the Commission, evidence code is adequate. Argue that the prescriptive of residential code should be acceptable in HVHZ. Currently flood is in Chapter 3, and the Chapter applies to HVHZ. Minor concern about ensuring no conflicts with HVHZ
- JC: one program incompatibility CCCL & NFIP (flood-proofing of nonresidential)
- TT: puts engineer in loop for all residential if residential code references ASCE 24. If the starting code is the current FBC, then would have to capture.
- JG: concern taken care of in 2009 IRC, provides alternative to go to ASCE 24.
- TT: sense is interest in having it as alternative, not limited to specific zone.
- BP: question as written is to adopt 24, and simply go to 24.
- JG: read 322.1 & exception.
- TT: another reservation, if adopt 24 by reference in residential code, would there then be problem with wind design?
- RQ: 24 references ASCE 7 for flood loads.
- MM: no conflict.
- BP: general comment, understanding that certain concerns above I-Codes and/or 24 can be offered?
- EF: that’s the major concern.

*Interpretations of the flood provisions in the Code should be consistent with the policies and guidance of the NFIP.*

	<i>4=acceptable</i>	<i>3= minor reservations</i>	<i>2=major reservations</i>	<i>1= not acceptable</i>
<i>Initial Ranking</i> <i>3/25/09</i>	<i>2</i>	<i>2</i>	<i>3</i>	<i>3</i>

**Member’s Comments and Reservations (March 25, 2009):**

- NDA: not sure what “guidance” means. The interpretations should follow the same process for any other interpretations of the code.
- BP: FEMA is required to make sure the NFIP minimums are met. If FL decides to amend to be less than NFIP, would require that the minimums are captured elsewhere.
- NDA: this issue is not about the code change process, if we adopt the base provisions of the I-Code (deemed consistent), this is about interpretations. If in the code, why have to go to FEMA for interpretations?
- MA: agree, idea is to stay consistent.
- JG: interpretations are responsibility of code official; appeals to go Commission.
- JR: can seek advice of others in Commission’s process.
- BP: understanding is the interpretations should be consistent with NFIP, FEMA issues technical bulletins.
- MM: CCCL, interpretations done by BO, Commission always consults with DEP regarding previous policies to seek consistency of policy with previous practices. Look for solution from those who know the subject best.
- BB: no need to repeat, already doing it.
- RQ: local officials already have to interpret FPM ordinances.
- EF: would have local boards making decisions on appeals.
- MA & BP: that’s why acceptable, already covered.

- JR: could change to “responsible agencies should continue to make interpretations consistent with guidance.

*Adopt a minimum height of slab above grade, to apply in flat areas with poor drainage, in order to address flood damage in areas outside of FEMA mapped areas.*

	<i>4=acceptable</i>	<i>3= minor reservations</i>	<i>2=major reservations</i>	<i>1= not acceptable</i>
<i>Initial Ranking</i> <i>3/25/09</i>	<b>0</b>	<b>2</b>	<b>8</b>	<b>0</b>

**Member’s Comments and Reservations (March 25, 2009):**

- MA: Field experience with lots of damage.
- TT: outside of mapped SFHA? Isn’t that outside of objectives and scope of project?
- JG: think this is issue of education & notification, residential code already requires lot to be graded away, if lot is flat, already have to raise the foundation to satisfy the code. If not being done, it’s problem with implementation and enforcement.
- TT: 6” fall away to drainage.
- JG: only in place since adoption of current residential code; should be handled in new construction per current code.
- NDA: agree, residential code requires drainage, key issue is poor drainage. Where does the water go if site is very flat. This could require minimum height if there’s no drainage conveyance away. Agree with concept, not sure how could be done in the code, how to do it statewide given variations in how drainage is/isn’t handled.
- TT: our engineering department uses topo’s to identify areas with drainage, that dictates how high we require the finished slab.
- BP: take look at the specifics of the problem.
- JG: this is X Zones, not mapped as SFHA. Beyond NFIP, but is damage associated. Need to allow locals to establish site condition requirements.
- BP: up to 25% of NFIP payouts are outside of mapped SFHA.
- JS: concern is how to establish criteria for elevation. New code does require slope, so should take care of some issues.
- BP: minor, should look at damage outside of SFHA for further consideration.

**Specific Requirements**

- Consider a Code provision that requires the floors of homes to be at least 6’-12” above grade.
- Elevation of equipment above floodplain
- Venting
- Retrofitting
- Resisting hydrostatic pressure design
- Coastal A Construction
- V Zone Construction (breakaway walls)
- Added height above BFE (freeboard)
- Use of enclosed areas below BFE
- Enclosures in buildings seaward of CCCL
- Conditioned crawlspaces

## 2. HIGHER STANDARDS (EXCEEDING NFIP MINIMUM REQUIREMENTS)

*Allow local jurisdictions to adopt higher standards for flood resistance provision to address local concerns within the Code (based on local flood studies), to ensure local's ability to be eligible for the NFIP's Community Rating System.*

	<i>4=acceptable</i>	<i>3= minor reservations</i>	<i>2=major reservations</i>	<i>1= not acceptable</i>
<i>Initial Ranking</i> <i>3/25/09</i>	7	3		

### Member's Comments and Reservations (March 25, 2009):

- MM: locals already have authority to adopt local technical amendments.
- TT: I support, if don't have to go through the technical amendment process.
- BP: millions in savings under CRS for 'higher standards'. Benefit to all.
- JG: don't want to lock in, take this up last after discussion specifics.
- JG: depends on how decide the following issue, should take care of itself then.
- NDA: concur, concern with details.

*Seek a legislative exception so that local CRS (higher flood resistant standards) would not be subject to the local technical amendment requirements of the Code.*

	<i>4=acceptable</i>	<i>3= minor reservations</i>	<i>2=major reservations</i>	<i>1= not acceptable</i>
<i>Initial Ranking</i> <i>3/25/09</i>	2	8	0	0

### Member's Comments and Reservations (March 25, 2009):

- JR: maybe one to break-out, have limitations on local amendments, some may be easier/more desirable to get exception from: sunset every 3 years. May need review of ordinances to remain consistent with the codes. Ministerial, requirement for countywide review board, so if couldn't adopt local technical amendment if don't have that board. Another is a review of the fiscal impact, specified provision for local amendments, notice requirements. Last, location specific need; either want an exception from or a designation that participation in CRS is a "location specific need"
- JG: agree, think we can put some exception, with consensus, in statute that would except these amendment, outside of current process. Include review for consistency with base code every 3 years, otherwise could create trouble. Don't think should be subject to fiscal impact, already demonstrated benefits through CRS. Home Builders can support specific exception to sunset, subject to consistency review.
- JG: in favor of some statutory relief to minimize effect, but should be subject to some type of review.

*Seek a legislative exception so that local CRS (higher flood resistant standards) would not be subject to the local technical amendment requirements of the Code, subject to a consistency review with updated editions of the Code.*

	<i>4=acceptable</i>	<i>3= minor reservations</i>	<i>2=major reservations</i>	<i>1= not acceptable</i>
<i>Initial Ranking</i> <i>3/25/09</i>	9	1	0	0
<i>Revised</i>	10	0	0	0

### Member's Comments and Reservations (March 25, 2009):

- MA: DEM/FEMA does consistency review of ordinances with map revisions and Community Assistance Visits.
- JS: does FEMA & State audit on routine basis?

- MA: yes, but not yet on a specific schedule [community assistance visit].
- TT: consistency review would be based on the Code.
- JR: presumes NFIP maintains consistency of the I-Codes.
- BP: don't know all the details of the technical amendment requirements of the Code.
- JR: overview of local technical amendments. Interpret the proposal to allow default to local ordinances to adopt, without going through the technical amendment process. Local amendments to administrative provisions of the Code don't sunset. This recommendation is requiring that communities track updates to the FBC.
- BP: understand this would allow local amendments without sunset; assure consistency with NFIP.

*Adopt certain higher standards into the FBC, obviating the need for local jurisdictions to take separate action. Provide specific language for each of the higher standards that pertain to buildings and seek the authority (perhaps legislatively) that if adopted by local jurisdictions, those provisions do not sunset.*

	<i>4=acceptable</i>	<i>3= minor reservations</i>	<i>2=major reservations</i>	<i>1= not acceptable</i>
<i>Initial Ranking 3/25/09</i>	<b>0</b>	<b>1</b>	<b>5</b>	<b>4</b>

**Member's Comments and Reservations (March 25, 2009):**

- JG: handled by previous recommendations.
- BP: general statement: FEMA endorses allowing local jurisdictions to adopt higher standards.

*Adopt higher standards for flood resistance in an appendix to the code, and provide that communities can elect those higher standards without them being considered local technical amendments to the code.*

**Member's Comments and Reservations (March 25, 2009):**

*Not Ranked—Covered by Workgroup's previous actions.*

- JG: legal opinion about appendices is needed. There is no need to discuss this option.

*Provide for additional rate credits for more stringent program at the local level.*

Members agreed to delete this options as outside scope of the project.

*Require a minimum CRS (Community Rating Systems) rating for each jurisdiction.*

	<i>4=acceptable</i>	<i>3= minor reservations</i>	<i>2=major reservations</i>	<i>1= not acceptable</i>
<i>Initial Ranking 3/25/09</i>	<b>0</b>	<b>1</b>	<b>4</b>	<b>4</b>

*Adopt certain higher standards for flood resistance as the minimum requirements of the code, thus making all communities eligible for some CRS credits.*

	<i>4=acceptable</i>	<i>3= minor reservations</i>	<i>2=major reservations</i>	<i>1= not acceptable</i>
<i>Initial Ranking 3/25/09</i>	<b>1</b>	<b>3</b>	<b>3</b>	<b>3</b>

**Member's Comments and Reservations (March 25, 2009):**

- MA: prefer not to distract from mission of being consistent with NFIP minimum.



- JG: many communities haven't elected to adopt higher standards, should leave decision to the local level.
- TR: We already voted down requiring minim CRS; this considers certain standards for some credit.
- GC: how would that affect local's? All required to comply, not required to do CRS.
- TT: aren't we doing that by putting ASCE 24, getting some things that exceed the minimum.
- BP: clarify what does it mean the higher standards of FBC? Or NFIP?
- TR: at present, don't have freeboard in residential through ASCE 24.
- BP: IBC refers to ASCE, captured there.
- MM: ASCE 24 is required reference in the building code, so should qualify for some credit.
- Code should reflect minimums; jurisdictions responsible if they want higher standards, previously discussed providing that ability.
- MA: all ordinances should be qualified to get CRS 5% discount
- JR: if we adopt higher standards, does it yield statewide CRS credit? Yes.
- TT: this is related to previous discussion of consistency review of locally adopted higher standards.
- BP: support State in desire to achieve resistance to flood, if encourages CRS.
- JR: under FBC, once adopt code, locals adopt, no ordinance is required for the Code itself.
- JG: recognize value of CRS, charge is to meet NFIP, there are some counties that don't participate in CRS. Higher standards are decisions that should be at the local level. However, important to get code up to minimum NFIP.
- MM: Is there correlation of what is in the 2009 I-Codes, does it yield any CRS credits? Report back?
- BP: CRS has long list; different communities achieve same CRS in different ways.

### Higher Standards (CRS Credit)

- Freeboard
- Designed foundations in A Zones
- Limits on enclosures (prohibit or limit size)
- Prohibit use of fill for elevation
- Requirements for fill (compaction, extend beyond footprint, erosion protection)
- Require V Zone provisions in Coastal A Zones
- Cumulative SI/SD (Substantial Improvement/Substantial Damage)
- Lower SI/SD threshold

## 3. COORDINATION WITH LOCAL ORDINANCES

*Adoption of flood maps and administrative procedures shall be at the local level.*

### Member's Comments and Reservations (March 25, 2009):

- NDA: how does this work?
- MA: Florida is an "auto" adopt for revised maps.
- RQ: idea is to allow locals to ID date of first map/ordinance.
- TT: how in IRC? Table 301.2(1).
- MM: these maps tell where the Code applies. Could reference the maps and make available.

- JR: need to re-evaluate whether the “auto-adopt” provision would still apply (see previous opinion).
- TR: new maps, if they don’t like, don’t adopt.
- MM: can you model after wind maps? Where wind speed is local?
- BP: CFR specifies relationship with local; can rebut maps during map revision process. Locals in best position to comment on and specify current, effective map (even if revised maps are issued by FEMA).
- JG: easier with wind, one map for the State; locals establish based on specific criteria. Need to maintain philosophy in IRC, local specify flood maps & dates.
- Consensus: defer this topic to next meeting
- JG: will need to be done locally, has to be at the local level. Legislature needs to give authority to amend? Report back for next meeting.
- BP: general comment details on FEMA’s map revision process, appeals, local government coordinate, see 44 CFR 65-68.

*Develop a model “companion” ordinance that includes NFIP-consistent administrative provisions and includes NFIP requirements for development other than buildings and structures that are not within the scope of the Code. Also, include a list of more stringent requirements that local jurisdictions could consider for possible adoption.*

	<i>4=acceptable</i>	<i>3= minor reservations</i>	<i>2=major reservations</i>	<i>1= not acceptable</i>
<i>Initial Ranking</i> <i>3/25/09</i>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Member’s Comments and Reservations (March 25, 2009):**

- JG: did this with green building, works well. Important to put forth model that covers the general requirements.
- TT: would this be to help locals with ordinance? Like how BOAF did with Chapter 1?
- JG: advantage is to develop model and encourage, maintain philosophy of uniformity.
- MM: regard to model, with green building, has been helpful; get questions looking for model.

**4. ADMINISTRATIVE ISSUES**

*Provide a consistent definition of “substantial damage” (SD), determination of SD should use the same methodology/ basis in the Code and NFIP (replacement cost and market value respectively).*

Members agreed this issue was covered with the decision regarding the local jurisdiction companion ordinance approach.

**Member’s Comments and Reservations (March 25, 2009):**

- MM: for SD, dealing with damage, need to look at the IEBC, has consideration of market value and flood provisions.
- TT: nightmare after a storm, EB506.11 nonstructural elements based on replacement value. If SD based on market value, have to be elevated, not necessarily meet all other requirements of the Code. Plus, market value can be based on appraiser (125%) or get a licensed appraiser. Had a lot of structures with a lot of nonstructural damage. Wish there was a more consistent way to determine SD across code & NFIP. If use FEMA’s RSDE, two ways cash value or market value.

- MA: inconsistency in FEMA programs
- MM: with regard to structural aspect, we stopped using the cost, we use “level of improvement”. With regard to flood, still have 50%.
- NDA: would be nice to see consistent, not probable. Can correlate SD for flood as different to Substantial structural damage; for structures located in Sec XXX, utilize that SD definition. In flood zone, then use NFIP consistent substantial damage.
- TT: substantial damage, in about every circumstance have to have engineer to evaluate damage. After a big one, we don’t have enough engineers to do all the work needed.
- BP: NFIP allows some options, state can specify option but has to be consistent.
- NDA: substantial damage has different basis, not on cost but on damage.
- TT: maybe if NFIP would base on replacement value, solve the problem. Had substantial damage based on property appraiser figures, didn’t agree so got licensed appraisal and there were large differences.
- BP: explore whether the state could specify a method to determine market value.
- MM: does FEMA accept IEBC? Yes.
- JG: Florida Existing Building Code doesn’t have substantial damage /flood. 2009 IEBC is market value.
- EF: are we allowed to suggest the state specify how market value is determined?
- RQ: BOAF model administrative code has definitions; maybe define how MV is determined in that model?
- JR: state is very limited to what it can specify for administrative chapter.
- JG: while EB doesn’t have MV, does have definition for “value” is in-kind replacement cost (FL specific amendment).
- MM: used in Chapter 34.
- TT: would like a consistent method for NFIP purposes; if can be covered in Chapter one by communities, then that solves the problem.
- NDA: our ordinance says MV can be determined by property appraisal or obtaining a licensed appraiser.
- Conclusion: covered by local jurisdictions/model ordinance.

*Recommend a strategy for dealing with jurisdictions that administer their flood damage reduction ordinance in a department other than the building department.*

Members agreed this issue was covered with the decision regarding the local jurisdiction companion ordinance approach.

#### **Member’s Comments and Reservations (March 25, 2009):**

- JG: think the NFIP program looks to have a local floodplain manager, but the NFIP doesn’t specify which department.
- JR: one of the problems is if put it in the code, then becomes duty of the BO to enforce. Perhaps modify 468 if local decision is to take off BO.
- EF: in Miami-Dade, have 34 municipalities, if put flood standards in code can’t eliminate DERM review.
- JG: the building design/construction would be in the building code; rest of it should be decided by local. But construction requirements belong in the FBC.
- TT: if have flood plain managers doing review, would that be unlicensed?

- JG: depends what they're doing, e.g., establishing BFE is duty of flood plain managers, if foundation, is duty of the BO.
- MA: other non-building development has to be done by flood plain managers, not the BO.
- BP: not different than how it is done today, needs to be coordinated with appropriate departments.
- Consensus: this is covered by companion ordinance approach.
- BP: assure consistency.

*Don't put the NFIP specific administrative requirements in IRC into the FBC, provide link to the local ordinance.*

Members agreed this issue was covered with the decision regarding the local jurisdiction companion ordinance approach.

*Retain administrative provisions in the IRC and adopt IBC Appendix G into the body of the FBC to capture development other than buildings into the code.*

Members agreed this issue was covered with the decision regarding the local jurisdiction companion ordinance approach.

## 5. COASTAL CONSTRUCTION CONTROL LINE AND V ZONE REQUIREMENTS

*Inconsistencies between the CCCL and V Zone requirements shall continue to be resolved at the local level, and on a case-by-case basis.*

	<i>4=acceptable</i>	<i>3= minor reservations</i>	<i>2=major reservations</i>	<i>1= not acceptable</i>
<i>Initial Ranking 3/25/09</i>	<b>8</b>	<b>1</b>	<b>0</b>	<b>0</b>

### **Member's Comments and Reservations (March 25, 2009):**

- GC: provided background on CCCL & evolution since inception. Over time, discrepancies are being reduced due to mapping methodologies. State mapping may capture some areas identified by FEMA as A Zone or X Zone. For example, State requires breakaway in A Zone, for NFIP have to also have opening. More troublesome issue is related to dry flood-proofing of nonresidential buildings seaward of CCCL (FEMA does not allow in V Zones). Since 2002, have heard little of problems sorting out differences. DEP can comment on resolution; take care to not undermine NFIP. Doing flood studies now in Panhandle related to 2004/05 seasons.
- MA: now, leave at local level; next item may be able to minimize in the future.
- MM: since putting CCCL in FBC, haven't seen any problems between two sets of requirements.
- TT: mentioned A Zone inside CCCL, have to meet both. We work it out.
- BP: FEMA supports state CCCL with higher requirements. Would like to work out inconsistencies if possible and stay consistent with NFIP minimums.

*Recommend a strategy for determining whether any inconsistencies between the CCCL and V Zone requirements can be resolved by code changes in the next code cycle (2013) (i.e., coordination between FBC, DEP, DEM, FEMA).*

	<i>4=acceptable</i>	<i>3= minor reservations</i>	<i>2=major reservations</i>	<i>1= not acceptable</i>
<i>Initial Ranking 3/25/09</i>	<b>6</b>	<b>3</b>	<b>0</b>	<b>0</b>
<i>Revised 3/25/09 remove 2103</i>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Member’s Comments and Reservations (March 25, 2009):**

- Why wait four more years?
- MA: time and info, may not be timely to get adequate consultation.
- JG: we still have time this cycle.
- Consider the 2009 I-Codes, need to direct “retain flood” with some amendments, rather than point to Chapter 31/local ordinance.