

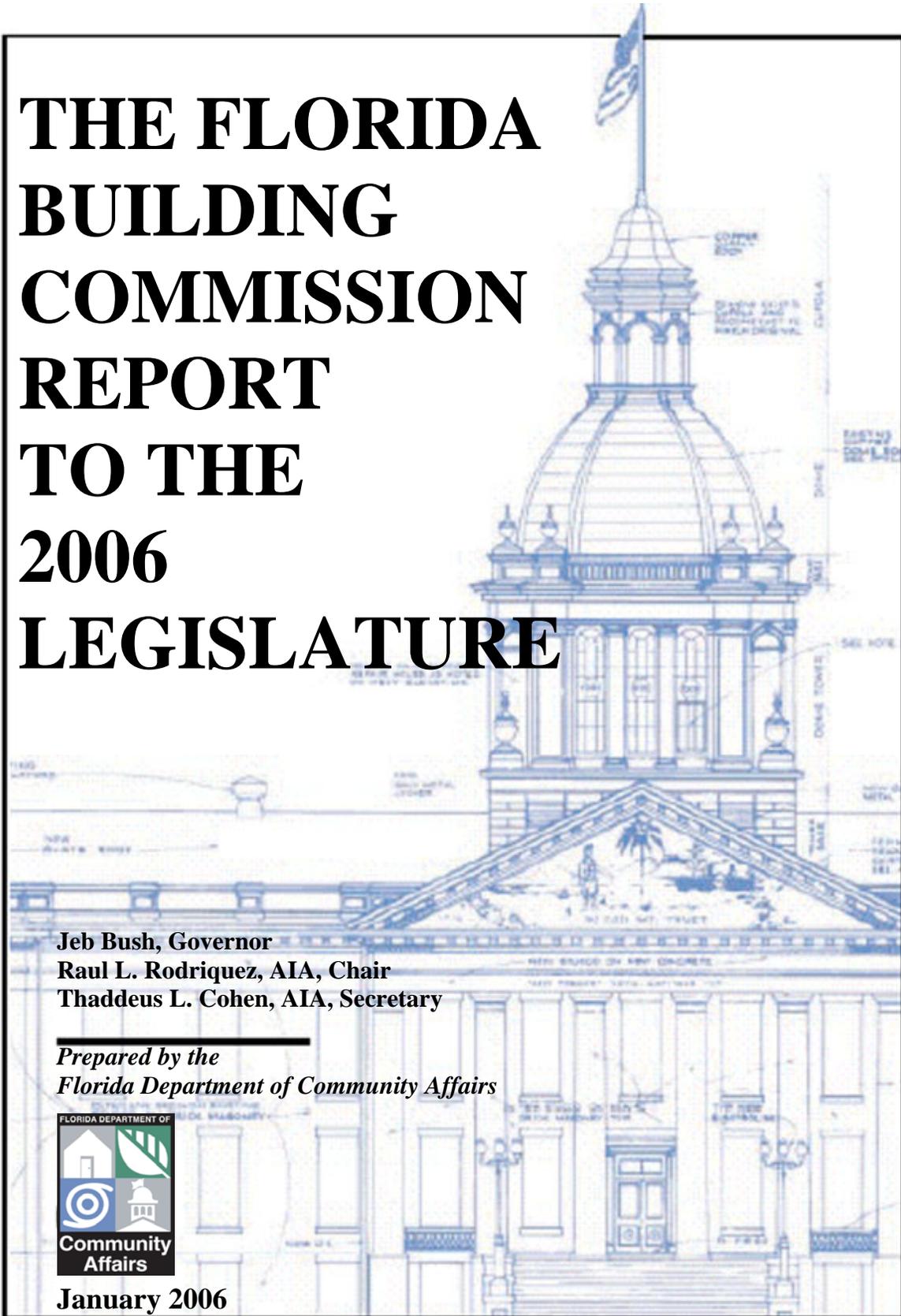
# THE FLORIDA BUILDING COMMISSION REPORT TO THE 2006 LEGISLATURE

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*Prepared by the  
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## 1. Executive Summary

The primary focus of the Florida Building Commission during 2005 was the completion and implementation of the second edition of the Florida Building Code (the Code), implementation and refinement of the Product Approval System, a comprehensive review of the Building Code System, hurricane damage investigations and the resulting expedited code amendments, and responding to the 2005 Legislature's assignments.

The Florida Building Code System was developed after Hurricane Andrew to streamline statewide adoption and enforcement of improved hurricane protection standards. Hurricanes Charley, Frances, Ivan and Jeanne in 2004, and Dennis, Katrina, and Wilma in 2005 demonstrated the overall effectiveness of the Code, and identified areas that need additional refinements. Analyses of these storms were conducted throughout 2005 and will continue during the coming year. Assessments indicate the design wind speeds required by the Code were adequate and buildings built to the new code did not experience nearly as severe damage as older buildings. While some new building technologies did have weaknesses, the major structural systems failures seen in older buildings were avoided in buildings complying with the Florida Building Code. The Commission has addressed some of these weaknesses through implementation of the expedited code amendments, and will implement additional code enhancements during the 2006 annual interim amendment process, which begins in earnest January of 2006.

The Code establishes minimum requirements to protect buildings and their occupants from wind, rain, flood and storm surge based on well-researched and continually-evolving engineering standards for buildings and products that go into their construction. It is important that the Commission be able to quickly integrate these standards into the Code to keep pace with changes in building technology and advances in the sciences of storm dynamics and building performance. As a result of 2005 Legislation, the Commission is now able to adopt the most current edition of the American Society of Civil Engineers Standard 7, and ensure that the primary wind resistance design standard used in the Code is up-to-date.

The Commission is required by Florida law to update the Florida Building Code (the Code) every three years, and the 2004 Edition represents the first update and second edition of the Code. The update process is based on the code development cycle of the national model building codes which serve as the "foundation" codes for the Florida Building Code. The 2004 Edition of the Code is now in place, and for the first time Florida has a new code specific to existing buildings based on the International Existing Buildings Code, the Existing Building Code, and the addition of a new code specific to one and two family homes and townhouses based on the International Residential Code, the Residential Code. The Commission is in the process of implementing code amendments to enhance the high wind provisions of the Residential Code.

Florida Statute, Chapter 553.77(1)(b), requires the Commission to make a continual study of the Florida Building Code and related laws and on a triennial basis report findings and recommendations to the Legislature for provisions of law that should be changed. In 2005, the Commission, working with stakeholders, conducted a comprehensive review of the Building

Code System and related programs and adopted a package of recommendations, three of which will require legislative action, and others that the Commission will implement through rule development or a policy decision, as appropriate. These recommendations are included in this Report. Of particular note is the Commission's unanimous recommendation to request Statutory authority for an "expedited amendment" process for glitch and correlation (including errata) amendments. Chapter 553, F.S. would be amended to allow the Commission to implement expedited amendments using only the standard Chapter 120 rule development procedures. The Code is a complex interrelated document comprising thousands of pages and containing a myriad of related standards and references which must be evaluated and updated on an ongoing basis. In the case of editorial and unintended glitches, it important for the Commission to correct these non-controversial glitch and correlation issues as quickly as possible in order to prevent unintended consequences and unnecessary delays and complications for all of the building code system participants.

The product approval system went into effect October of 2003 and the workload of the Commission increased immediately. Since its inception 4,499 applications were processed and 21,659 products were approved for statewide use within limitations established by the approvals. The Commission implemented by administrative rule, major changes to Rule 9B-72, the product approval rule, by working with stakeholders to identify issues, evaluate options, and reach consensus on refinements to the system. The Rule changes went into effect on January 1, 2006, concurrent with major revisions to the Building Code Information System (BCIS), the on-line electronic method required for submitting products for state approval. A major enhancement to the review and consideration of product approvals was implemented with the hiring of a product approval administrator, whose responsibilities include making recommendations to the Commission's Product Approval POC regarding applications for product and entity approvals.

The effectiveness of the Building Code depends on the knowledge of professionals who design and construct buildings. The Commission continues to work with the Department of Professional Regulation and representatives of the licensing boards to establish a cooperative system for approving building code courses and integrating building code continuing education into licensing requirements. The Commission developed rules and an online application process for a course accreditation with the licensing boards and completed the process of adopting rules requiring continuing education. The Commission also decided to hire an Education System Administrator, similar to the Product Approval System's administrator, to provide technical assistance in establishing course development guidelines and to conduct oversight of the Building Code Education Accreditation System.

The Commission's commitment to consensus-building on substantive issues was spotlighted during 2005, with Chairman Rodriguez appointing facilitated workgroups comprised of Commission members and representative stakeholders to reach agreement on packages of recommendations in their respective subject areas. The workgroups convened during 2005 include: the Hurricane Research Advisory Committee, Product Approval Workgroup, Product Approval Validation Workgroup, Building Code System Assessment Ad Hoc Committee, Attic Ventilation Workgroup, and the International Code Council Participation Workgroup. Each of these groups worked with stakeholders to identify issues, evaluate a full range of options, and submit consensus recommendations to the Florida Building Commission in their respective topical areas.

The 2005 Legislature assigned the Commission a variety of projects including conducting an evaluation of Panhandle wind borne debris protection requirements, an evaluation of the definition of Exposure Category C, studying whether the State would be served by a single product approval validation entity, adopting procedures for staff review of code amendments, adopting rules of appeal of building official decisions through binding interpretations, adopting a private provider of building code inspection jobsite notice form, and implementing several code amendments through the expedited code adoption process. The Commission, working with affected interests, has developed recommendations and/or implemented all of their legislative assignments, and the Commission's recommendations and resulting actions are detailed in this report.

Monitoring the building code system and determining refinements that will make it more effective is a primary responsibility of the Commission, and it continually makes refinements by administrative rule amendment where statute delegates authority. However, the system is established in law so some refinements require amendment of statute. The Commission's recommendations for legislative actions that will improve the system's effectiveness are summarized as follows:

- Provide statutory authority for an "expedited amendment" process in Chapter 553, F.S. for glitch and correlation (including errata) amendments to new editions/updates of the Code. The process would allow the Commission to implement expedited amendments using only the standard Chapter 120 rule development procedures.
- Require that the sizing of private sewage systems be governed by definitions provided in the Florida Building Code.
- Recommend that the Legislature create a Senate and/or House committee specific to the Florida Building Code.
- Eliminate the Commission's authority to issue declaratory statements or binding interpretations regarding Chapter 11 of the Code, the Florida Accessibility Code of Building Construction. This would not affect the Commission's authority to issue waivers from accessibility requirements pursuant to authority granted in 553.512(1) F.S.
- Remove the Panhandle Windborne Debris Region definition from law, thereby authorizing the Commission to develop and adopt a new definition within the Code by administrative rule.
- Remove the Exposure Category C definition from law, thereby authorizing the Commission to develop and adopt a new definition within the Code by administrative rule.

## 2. Introduction

Florida adopted a state minimum building code law in 1974 that required all local governments to adopt and enforce a building code. The system provided four separate model codes which local governments could adopt that were considered to establish minimum standards of health and life safety for the public. In that system the state's role was limited to adopting all or relevant parts of new editions of the four model codes. Local governments could amend and enforce their local codes as they saw fit.

Hurricane Andrew demonstrated in 1992 this system of local codes did not provide the level of public protection that was necessary when the local code that was universally acknowledged to set the strongest standard for hurricane protection essentially failed. The resulting problems had impacts well beyond southern Miami-Dade County. The state filled the property insurer void left by failed and fleeing private insurance companies and the federal government poured billions of dollars of aid into the disaster area. It became starkly apparent the state had a significant interest in the effectiveness of building codes.

After Andrew, Miami-Dade County conducted an exhaustive review of its building code and made significant changes to both the code and support systems for code enforcement. In other areas of the state the Florida Board of Building Codes and Standards (predecessor to the Florida Building Commission) adopted significant upgrades to wind resistance standards of the model state minimum code that was used by the majority of other local governments. The state also instituted licensing of local governments' building code enforcement personnel. These steps proved critical to the contributions of building codes to improved building performance in the 2004 hurricane season.

The state, like Miami-Dade County, went beyond just modernizing the state minimum building codes. In 1996 a study commission was appointed to review the system of local codes created by the 1974 law and make recommendations for modernizing the entire system. The 1998 Legislature adopted the study commission's recommendations for a single state building code and an enhanced oversight role for the state in local code enforcement. The 2000 Legislature authorized implementation of the Florida Building Code and the first edition replaced all local codes March 1, 2002.

The first major tests of the building code enhancements implemented since Hurricane Andrew came with 2004's Hurricanes Charley, Frances, Ivan and Jeanne. Hurricanes Frances and Jeanne produced winds below the design speeds required by the Code but they were long in duration and produced significant rainfall. Hurricane Charley was a design wind speed storm that moved quickly across the state and produced less rainfall. Hurricane Ivan, similar to Hurricane Opal in 1995, were category 4-5 storms while approaching land, but their winds diminished dramatically when approaching land, lowering their winds below design wind speeds. However, their storm surges wreaked havoc along barrier islands and mainland waterways. Each storm provided different kinds of tests and exposed different types of building failures. The difference in the building failures experienced by buildings built to older codes and those built to the new Florida

Building Code, was that older buildings had major damage to property and proved to be unsafe shelters. In contrast, buildings built to the Code had minor property damage and provided safe shelter. The testimony of homeowners, who in 2002 were skeptical of the new code requirements and its added costs, was they felt safe in their homes and found value in the additional costs associated with complying with the Florida Building Code.

During 2005 Florida was besieged by a series of three hurricanes that tested the Code once again. Although Hurricanes Dennis, Katrina, and Wilma were devastating to the citizens of the State, they added further evidence that the Florida Building Code is working. In addition, the observations, investigations and research regarding storm related damage, provided additional insight on how to improve the products and construction methods used in Florida. The Commission continues to study how to enhance the Code through the work of its Hurricane Research Advisory Committee, which meets at each Commission meeting.

Engineering standards progress as new real world tests like hurricanes provide the laboratory for expanding knowledge. It is essential that Florida maintain pace with the evolving standards because its coastal exposure and rapidly expanding population create a major risk and limits options for ensuring the safety of its citizens. The Commission keeps pace by amending the Code annually to adopt updated reference standards and by major updates every three years to incorporate new editions of the national model codes. A major focus of the Commission's efforts in 2005 was the consideration and adoption of enhanced storm protection provisions, resulting from a comprehensive review of investigations resulting from the Hurricanes of 2004 and 2005.

### 3. Legislative Assignments

The 2005 Florida Legislature, through the passage of Committee Substitute for Committee Substitute for Committee Substitute for Senate Bill 442 (SB 442), signed into law by the Governor on June 8, 2005, assigned the Commission with a variety of tasks ranging from code amendments to procedural matters to special studies.

In response, the Commission addressed each of the legislative assignments.

The results of the Commission's actions relative to each task are organized by building code issues, special studies, and procedural and operational functions.

#### **Florida Building Code Related Tasks**

**Expedited Code Amendments:** As a result of hurricanes affecting Florida during the 2004 season, the Florida Building Commission requested and was granted authority by law to adopt code amendments addressing hurricane protections issues in an expedited process. The legislation enacted in 2005 (SB 442 Section 34) authorized the Commission to adopt consensus-based code provisions addressing water intrusion and roof-covering attachment weaknesses, subject only to the rule adoption procedures in Chapter 120—the Expedited Code Amendment process. In addition, the Legislation identified additional specific provisions for the Commission to review and/or implement. The Commission adopted the specific provisions directed by the Legislature by amending Rule 9B-3.047 in an expedited process, that was completed at the October 10, 2005 Commission meeting.

The Commission adopted the IRC non-vented attic criteria (SB 442 Section 33), conducted a review of roof panel sheathing criteria (SB 442 Section 48) and repealed modifications numbers 569 and 570 to the Code, adopted the swimming pool exit alarm provisions (SB 442 Section 32), and adopted the most current edition of ASCE-7, wind protection requirements (SB 442 Section 36).

In addition, the Commission implemented the provisions related to airport noise safety guidelines (SB 442 Section 7), and backflow prevention assemblies inspections (SB 442 Section 21), which were adopted by the Legislature.

**2004 FBC Glitch Amendments/2006 Annual Amendment to the 2004 Florida Building Code:** The 2006 annual amendment process has begun and the Commission will, as required, amend the 2004 FBC to allow use of the area under mezzanines to be included in the calculation of total floor area when determining the maximum allowable mezzanine area in sprinklered S2 occupancies of Type III construction, retroactive to the adoption of the 2001 FBC (SB 442 Section 44), modify Table 1014.1 of 2004 FBC maximum occupancy loads for R occupancies (Section 46 SB 442), and amend section 1014.1.2 of 2004 FBC to exempt R1 and R2 occupancies from required distance between exits under certain conditions (SB 442 Section 46).

**2007 Florida Building Code Update:** This will represent the next Code update cycle, culminating in the second update and third edition of the Code. During the 2007 update, the Commission will eliminate the “interior pressure design” option for buildings in the wind-borne debris regions consistent with the IBC and IRC (SB 442 Section 37).

## **Special Studies**

**Panhandle Hurricane Ivan Study (SB 442 Section 39).** The 2005 Florida Legislature debated whether to revise the definition of the windborne debris region along the panhandle coast from Franklin County to the Alabama border and determined further study was warranted. It directed the Florida Building Commission to review the effects of Hurricane Ivan on damage caused by windborne debris and other data, and in conjunction with building officials from the impacted areas, to develop a recommendation for consideration by the 2006 Legislature.

On September 13, 2005 the Commission conducted the first workshop which was held at the Okaloosa County Airport, for the purpose of soliciting input from local building officials and other stakeholders in the Panhandle region of the State. At the conclusion of the workshop, there was consensus for the strategy of conducting a study on the treed environment effects and historical wind data effects, in order to provide additional data for consideration in developing recommendations to the Legislature.

It should be noted that although the building officials from the Florida Panhandle expressed support for the study, all but one agreed that changes were not warranted at this time to the definition of the windborne debris region of the Florida Panhandle region. The local building officials’ comments ranged from most damage was related to surge and not windborne debris, to the Panhandle is a unique environment that ASCE 7 does not adequately reflect, to extra windborne debris protection should be voluntary and not mandatory, to mandatory protection will increase the cost of already unaffordable housing in the region.

Subsequent to the Panhandle workshop, at the October 2005 meeting, the Commission voted unanimously to request budgetary authority to contract with a consultant to conduct an engineering based risk assessment of hurricane windborne debris protection options for the Panhandle in order to analyze the risks, costs, and benefits of windborne debris protection for the region. The research will focus on factors unique to the Panhandle region including treed areas inland of the coast, and consider historical wind data effects. The requested funding authorization was approved, and the consultant scheduled to update the Commission at their February 2006 meeting.

At the February 2006 Commission meeting, the consultant reported that the goal of the study is to perform wind tunnel tests for houses located in treed environments characteristic of the Florida Panhandle, and to develop computer models for analysis of wind borne debris protection effects for representative Panhandle houses. The consultant is currently updating the wind-borne debris model in preparation for the wind tunnel tests designed to perform hurricane simulations of the representative houses located at various positions in the Panhandle, designed to evaluate

building damage and loss with and without windborne debris protection. To date, wind tunnel tests have been conducted, hurricane data has been analyzed, and computer models modified.

At the conclusion of the Panhandle Study update, the Commission voted unanimously to recommend that the Legislature remove the Panhandle Windborne Debris Region definition from law, thereby authorizing the Commission to adopt a new definition within the Code by rule. The Commission is committed to working with stakeholders to develop consensus on a new definition to be developed and adopted by rule into the Code. To this end, the Commission has scheduled a second Panhandle region workshop for February 16, 2006, and will continue to work with stakeholders in a consensus based process once the Study is complete.

It should be noted that the Commission's decision to proceed with this strategy, is consistent with State policy of recognizing that Florida is a diverse State geographically and climatically, and risks are not uniform throughout the State. On this basis, the Florida Building Code and National Engineering Standards consider requirements specific to different regions of the State, when and where appropriate, such as, the High Velocity Hurricane Zone (HVHZ) provisions of the Code specific to Miami-Dade and Broward counties in Southeast Florida, and variations of design wind speeds relative to proximity to Florida's coasts. In addition, the Commission has always advised that Code should be developed by the Commission in a consensus process and not written into law.

The report of the Panhandle Windborne Debris Region Workshop is included as "Appendix A".

**Exposure Category C Study (SB 442 Section 41).** This legislative assignment requires the Florida Building Commission to evaluate the definition of "exposure category C" as currently defined in section 553.71(10), Florida Statutes, and make recommendations for a new definition that more accurately depicts Florida-specific conditions prior to the 2006 Regular Session.

The Commission assigned this task to its Hurricane Research Advisory Committee in order to utilize the Committee's expertise in this subject area. The Commission is considering the recommendation from stakeholders, that in contrast to current ASCE-7 methodology, the default exposure category for Florida should be exposure category B, and clear definitions and criteria will be developed by the Commission in consultation with stakeholders, to define what constitutes Exposure C. These criteria and conditions will include distance factors, the starting point for where to begin measurements, a clear definition of open terrain, and size and density considerations for large development exemptions.

After reviewing the proposed strategy for defining Exposure Category C, the Commission has reached a conceptual agreement with stakeholders on how to revise the definition, and voted unanimously at their February 2006 meeting, to recommend that the Legislature remove the exposure Category C definition from law, thereby authorizing the Commission to adopt a new definition within the Code by rule. The Commission is committed to working with stakeholders to develop consensus on a new definition to be developed and adopted by rule into the Code.

**Product Approval Single Validation Entity Study (SB 442 Section 45).** In response to this legislative assignment, the Florida Building Commission convened the Product Approval Validation Workgroup to review the role of the third party validators in the product approval process, and to make recommendations back to the Commission regarding to what extent the validators should review the technical documentation substantiating compliance with the Florida Building Code.

The Workgroup was composed of 10 stakeholders in the State system of product approval including three members of the Commission, to ensure diverse input. The workgroup studied the Product Approval Workgroup's and Commission's recommendation that the State be served by a single validation entity for State approval. The PAVWG's recommendations include, but are not limited to, the recommendation's feasibility, qualifications of the single entity and its staff, costs charged for validation, time standards for validation, means to challenge the validator's determination, and duration of the contract with the validator. The workgroup conducted its proceedings in an open forum subject to comment from the public at each meeting.

The Workgroup presented its package of recommendations to the Commission at the December 2005 meeting, where after public comment, the Commission voted to report to the 2006 Legislature that at this time, the State is not served by a single validation entity for state approval, and the Commission will convene a process to work with stakeholders to review and develop consensus recommendations regarding the validation requirements/details for each of the four compliance methods, the degree of technical review required for the compliance options, and review the validation requirements for the certification agency compliance method.

**Staff Review of Code Amendments (SB 442 Section 7).** Section 553.73 (7)(c) enacted in 2005, mandates that the Commission require all proposed amendments and information submitted with proposed amendments to be reviewed by Commission staff for sufficiency, prior to consideration by the Commission's TAC's.

The Commission developed the process in consultation with stakeholders, during a rule development workshop and hearing conducted during October and December of 2005, respectively. Rule 9B-3.050 conforms the Rule to statutory requirements. In general, the Rule requires that Commission staff shall ascertain whether the amendment has been submitted in legislative format, if the rationale for amending the code has been provided, and if all six questions regarding fiscal and other impacts have been answered by the proponent.

The recommendations of the Product Approval Validation Workgroup are included as "Appendix B".

**Rules for Appeal of Building Official Decision/Binding Interpretations (SB 442 Section 9).** Section 553.775, F.S. enacted in 2005, requires the Commission to implement by rule a process for the Florida Building Code to be interpreted by building officials, local enforcement agencies, and the Commission in a manner that protects the public safety, health, and welfare at the most reasonable cost to the consumer by ensuring uniform interpretations throughout the State and by providing processes for resolving disputes regarding interpretations of the Florida Building Code that are just and expeditious.

The Commission developed the process in consultation with stakeholders, during a rule development workshop and hearing conducted during October and December of 2005, respectively. Rule 9B-3.055 conforms the Rule to statutory requirements.

In general, the Rule requires that petitions for binding interpretations of the Florida Building Code shall be made through the Building Code Information System on the Internet. There is a fee of \$250, Form No. 9B-3.055(1) is used, and two copies are printed for submittal to the enforcement agency that rendered the decision that is the subject of the petition. The local building official shall respond to the petition within 5 working days after receipt, and return the petition to the petitioner with the response. The petitioner may file the petition with the Commission at any time after it is returned to him or her, or after 10 days if the local building official has not responded. The Commission shall immediately publish the petition online on the Building Code Information System, accept online comments from interested parties for a period of seven calendar days, and provide copies of the petition to a panel. The panel shall conduct proceedings as necessary to resolve the issue, considering the petitioner's arguments, the building official's response and comments made on the petition, and shall issue an interpretation within 21 days of the petition's submittal, based either on code language or the intent of the code. The 21 days may be waived only upon consent of all parties. The interpretation shall be provided to the Commission, which shall post it online on the Building Code Information System and publish it in the Florida Administrative Weekly. The interpretation shall be binding to all parties and all jurisdictions subject to the code unless it is superseded by a declaratory statement issued by the Florida Building Commission or by a final order entered after an appeal proceeding conducted. Appeals to interpretations shall be filed within 30 days of issuance of an interpretation and shall be conducted in accordance with Chapter 120 and the uniform rules of procedure. The interpretation rendered by the panel of building code administrators shall become final upon the earlier of the resolution of any appeal of that interpretation before the Florida Building Commission or the expiration of the time period in which to initiate such appeal.

A Code resolution process options flow chart is included as "Appendix C".

The Commission recommends that the Legislature revise the appropriate statutes to provide that the binding interpretation process does not apply to the Accessibility Code, Chapter 11 of the Florida Building Code, and that the Commission not have the authority to hear petitions for declaratory statements on the Accessibility Code. The result, is that the only authority the Commission retains relative to Chapter 11 of the Florida Building Code, is the Commission's authority to issue waivers from accessibility requirements pursuant to authority granted in 553.512(1) F.S.

In 1993 the Florida Legislature enacted the “Florida Americans with Disability Accessibility Implementation Act.” The purpose and intent of this Act (Sections 553.501 – 553.513, F.S.) is to incorporate into the laws of Florida the accessibility requirements of the Americans with Disabilities Act of 1990, Public Law No. 101 – 336, 42 U.S.C. Section 12101 ADA, while at the same time to maintain those provisions of Florida Law that are more stringent than the ADA accessibility guidelines, that is, those provisions which are more favorable to the needs of the disabled. In 1997 the legislature amended the act to complete the move to establish consistency of the Florida accessibility building code to the Federal ADA Accessibility Guidelines as adopted by the Department of Justice at 28 CFR part 36, Appendix A.

Since the Accessibility Code is created by a separate statute than the Florida Building Code, this does not allow the Commission to amend the base code adopted by the Accessibility statute. The Commission may only adopt updated editions of the Federal ADA Accessibility Guidelines (Section 553.506, F.S.), and all current and future Florida Specific amendments are established by the Legislature in law. The Florida Accessibility Code is updated by separate rule, and the Code is deemed amended when the accessibility rule is changed. The statute provides only for modifications and waivers of the Accessibility Code on a project specific basis. Section 553.512, F.S. provides the Commission with authority “... for granting individual modifications of, or exceptions from the literal requirements of this part upon a determination of unnecessary, unreasonable, or extreme hardship, provided such waivers shall not violate federal accessibility laws, and shall be reviewed by the Accessibility Advisory Council.”

**Private Provider Jobsite Notice Form (SB 442 Section 11).** Section 553.791, F.S. enacted in 2005, requires the Commission to develop a form for use by the private provider. The form requires specific information to be posted on a jobsite where a private provider is conducting inspections.

The Commission developed the form in consultation with stakeholders, during a rule development workshop and hearing conducted during October and December of 2005, respectively. Rule 9B-3.053 conforms the Rule to statutory requirements. In general, the form adopted by Rule requires the provider to identify the private provider’s primary contact, the company name, address, telephone and fax numbers, and the types of service being performed by the private provider.

## **4. The Florida Building Code**

The Commission is required by law to update the Florida Building Code (Code) every three years, and the 2004 Edition represents the first update and second edition of the Code. The update process is based on the code development cycle of the national model building codes which serve as the “foundation” codes for the Florida Building Code. National model building codes and most engineering standards are updated every three years and the intent is to keep the Code up-to-date with evolving national standards of health, safety and welfare of the public.

The model building codes on which the Florida Building Code is based have undergone a major transformation since work began on the Florida Building Code in 1998. In 1998 there were three model code organizations, each with a separate model code that included a “building” code for structural, fire safety and general building design requirements and separate plumbing, mechanical (heating, cooling and ventilation) and fuel gas sub-codes. The code for electrical systems is a reference standard and is developed by a separate organization. During the late 1990’s the three regional model code organizations were transitioning into a single organization, the International Code Council, which was to develop a single national model code. When that code was completed and the organizations merged, the three prior model codes were abandoned. In late 1998 when the Commission selected a model code to provide the base requirements for the Florida Building Code, the International Plumbing, Mechanical and Fuel Gas sub-codes were in place but the “Building” Code was still under development. The first edition of the Florida Building Code is based on the International sub-codes and the Standard Building Code, which had been used by Florida counties, municipalities and state agencies since the mid-1970’s, for the “building” volume. The last edition of the Standard code was published in 1999. The first edition of the new International Building Code was in place by 2000 and has since been updated with a second edition, the 2003 International Building Code. With the adoption of the Second Edition of the Florida Building Code, the Code is now based on the International Family of Codes, modified with Florida specific amendments. Florida specific amendments go through a rigorous review process including posting to the BCIS for forty-five days prior to a review by the Commission’s Technical Advisory Committees (TAC’s), posting the TAC’s recommendations for forty-five days prior to Commission consideration, and then the Chapter 120 rule development process. The Commission provides multiple input opportunities for public comment, and once the code is published, six months must pass before the Code’s effective date.

Although, the 2004 Code was scheduled to become effective on July 1, 2005, the Florida Legislature, at the request of industry groups, delayed the effective date until October 1, 2005. Industry requested additional time to become familiar and train on the differences between the Code editions. The 2004 Edition of the Code is now in effect and the Commission and stakeholders are reviewing the documents in preparation for the upcoming Annual Amendment process. Of note, Section 553.73 (6)(e) requires that updates to the Code take effect no sooner than 6 months after publication of the updated Code, and the Commission’s code development schedules reflect this requirement.

The Commission began its annual interim amendment process for 2006, with a focus on identifying and correcting code glitches and correlation issues related to implementation of the 2004 Edition of the Florida Building Code. The amendment submittal cut-off date was December 1, 2005 and the Commission's Technical Advisory Committee's will meet in January of 2006 to review the proposed amendments and make recommendations to the Commission, who will review the amendments and initiate rule-making in February of 2006. The anticipated effective date for the 2006 annual amendments is October 1, 2006.

Of particular note, during the glitch process the Commission will consider additional hurricane provision enhancements proposed by the Hurricane Research Advisory Committee as well as amendments to the FBC Residential Volume prescriptive design criteria. Specifically, the Commission is considering enhancements to the Residential Code for high wind, related to the masonry, foundations, wall coverings, wood, roofing, and windows provisions of the FRC.

The 2007 Florida Building Code Update process will be a major focus of the Commission in 2006, and represents initiation of the triennial code update process for the 2007 Edition of the FBC. This process will begin six months after the printing and availability of the 2006 Edition of the International Building Code (IBC), and will culminate in the completion of the Third Edition of the Florida Building Code in 2007, and implementation in early 2008.

## **5. Hurricane Damage Investigations—Expedited Code Amendments**

As a result of hurricanes affecting Florida during the 2004 season, the Florida Building Commission requested and was granted legislative authority to adopt code amendments in an expedited process. The legislation enacted in 2005 (SB 442 Section 34) authorized the Commission to adopt consensus-based code provisions addressing water intrusion and roof-covering attachment weaknesses, subject only to the rule adoption procedures in Chapter 120—the Expedited Code Amendment process. In addition, the Legislation identified other hurricane resistance and fire safety provisions for the Commission the review and/or implement.

In response to the 2004 Hurricane Season, Chairman Rodriguez appointed a small coordinating group, the Hurricane Research Advisory Committee, consisting of Commissioners and other stakeholder representatives, charged with identifying what research is being conducted related to building failure issues resulting from the 2004 hurricanes, identifying any research gaps on key issues identified but not being researched, reviewing the research findings, making recommendations on whether to recommend code amendments or further studies, and finally, to ensure that the Commission is provided with all relevant research findings on each of the major issues, prior to the Commission considering code enhancements resulting from lessons learned.

The Commission began the formal hurricane review process with a workshop conducted in December of 2004. The workshop assembled all of the entities conducting studies on building damage and hurricane characterizations to assess what studies were already being conducted and what additional research was needed. At the conclusion of the workshop and a review of the preliminary observations, the Commission voted to fund a project starting in early 2005, to collect statistical data on the 2004 hurricanes. Subsequent to the Commission’s workshop, a Hurricane Symposium was held in February of 2005, where preliminary findings of the ongoing studies were presented.

The Hurricane Research Advisory Committee met at each subsequent Commission meeting during 2005, to consider presentations on the findings and recommendations from each of the studies, and delivered their package of recommendations for code enhancements resulting from lessons learned from hurricane storm damage, at the August 2005 Commission meeting.

The Commission reviewed the Committee’s recommendations and adopted a draft package of code amendments following public comment received during the rule development workshop conducted at the August 2005 meeting. The Commission subsequently conducted a rule adoption hearing at the October 2005 meeting, and adopted a final package of expedited Code amendments, including implementing legislative requirements related to the adoption of the IRC non-vented attic criteria (SB 442 Section 33), a review of roof panel sheathing criteria (SB 442 Section 48), swimming pool exit alarm provisions (SB 442 Section 32), and adopted the most current edition of ASCE-7, wind protection requirements (SB 442 Section 36). In addition, the Commission implemented the legislative provisions related to airport noise safety guidelines (SB

442 Section 7), backflow prevention assemblies inspections (SB 442 Section 21), and the provisions related to mezzanines (SB 442 Section 44) and means of egress (SB 442 Section 46).

Following is the chronology of events and subsequent Commission actions resulting from the 2004 hurricanes.

- Hurricane Charley hit on August 13, 2004 near Cayo Costa, Florida.
- Commission met in Miami on August 29 – 31, 2004 and staff presented early observations from the storm.
- Hurricane Francis hit on September 6, 2004 over Southern Hutchinson Island, Florida.
- Hurricane Ivan hit on September 16, 2004 between Gulf Shores, Alabama and Pensacola, Florida.
- Hurricane Jeanne hit on September 26, 2004 near Stuart, Florida.
- The Commission met on October 18 – 19, 2004, following three additional hurricanes and presented preliminary data collected from the four storms.
- The Commission met on December 6 – 8, 2004 and a hurricane researchers workshop co-sponsored by the Commission and the Institute for Business and Home Safety, was held on December 6, 2004.
- On January 12, 2005 the Florida Homebuilders Association released an assessment report concerning water intrusion during the 2004 hurricanes.
- At the Commission's January 2005 Commission meeting the Chair convened a workgroup to assist the Commission by ensuring they have all relevant research on each of the key issues identified during the hurricane assessments to assist the Commission with any needed code enhancements.
- At the Commission's January 2005 meeting, the Florida Home Builders Association presented findings and recommendations regarding water intrusion.
- On February 11 – 13, 2005, the Commission, the Department of Community Affairs, and the International Code Council jointly sponsored a Hurricane Symposium on the Impact of the 2004 Hurricanes on the Built Environment.
- On March 16, 2005 the Commission held a joint session with the Hurricane Research Advisory Committee and heard presentations and recommendations on studies related to water intrusion, building code performance, roof tiles, and the design of aluminum structures.
- At the May 10, 2005 meeting of the Hurricane Research Advisory Council the committee heard additional presentations and recommendations on water intrusion, and a window assessment failure study. In addition, at the May 10, 2005 meeting of the Hurricane Research Advisory Council, the committee was asked to make the following preliminary determinations relative to the various recommendations: First, based on the studies and related recommendations, do members support the recommendation, and second should the recommendation be recommended for early implementation (as a part of the legislative authorization for expedited code amendment implementation for hurricane related provisions) or should it be reviewed and considered through the regular Commission code amendment process. The HRAC evaluated each of the options and identified a preliminary list of options recommended for expedited code adoption as well

as options that were recommended for adoption through the normal code amendment process.

- At the June 28, 2005 meeting of the Hurricane Research Advisory Council the committee was asked to further consider those options that received a consensus for the recommendations and a 50% or greater level of support for expedited code adoption. The HRAC evaluated these as well as additional options identified by members. At the conclusion of the June meeting, the HRAC reached consensus on a package of recommendations for submittal to the Commission. The recommendations were for amendments recommend for expedited code adoption.
- Hurricane Dennis hit on July 10, 2005 in the Western Florida Panhandle region of the State, between Pensacola Beach and Navarre Beach Florida.
- At the August 23, 2005 meeting the HRAC evaluated the issues for consideration during the 2006 annual code amendment process, and identified issues that needed additional information or development prior to developing recommendations and that should be deferred for future code changes.
- The Commission adopted a draft package of code amendments following public comment received during the rule development workshop conducted at the August 2005 meeting.
- Hurricane Katrina landed on August 25, 2005 near the Miami-Dade Broward County Line in Florida, and on August 29, 2005 hit Plaquemines Parish Louisiana just south of Buras La, and again at the Gulf Coast border of Louisiana and Mississippi.
- At the October 10, 2005 meeting members reviewed the results of Commission action regarding expedited code amendments, and reviewed assignments and project status.
- The Commission conducted a rule adoption hearing at the October 11, 2005 meeting, and adopted a final package of expedited Code amendments
- Hurricane Wilma landed on October 24, 2005 near Cape Romano Florida and crossed the Florida Peninsula just north of Palm Beach, Florida.
- At the December 6, 2005 meeting, members heard presentations on observations from Hurricane Wilma damage to South Florida.

Of particular note is the extensive opportunity for public input during the Hurricane Research Advisory Committee (HRAC) meetings as well as during Commission meetings. In addition, each HRAC meeting provided opportunities for individuals and entities to present the results of their observations, studies, and research regarding the effects of the 2004 and 2005 hurricanes on the citizens of Florida and the built environment.

The recommendations of the Hurricane Research Advisory Committee are included as “Appendix D”.

## 6. Product Approval

The Florida Building Code establishes standards for products integrated into buildings in addition to standards for the design of buildings themselves. Where compliance with prescriptive standards such as location of fire exits can be determined by review of building plans and onsite inspections during construction, the performance of products such as windows cannot be determined by review of drawings or inspection of the product alone. Yet compliance of the individual products is fundamental to compliance of the overall building. To determine compliance of products and building systems the building official must rely on engineers and testing laboratories to evaluate performance then rely on the manufacturers to maintain quality control of production to ensure production products perform like the ones tested. The product approval system framed in law and implemented through rule requires accreditation of the product evaluators and quality assurance monitors and standardizes the information that must be provided to demonstrate code compliance.

The Commission directed a major part of its efforts since its inception in 1998 to standardizing the many combinations of product evaluation and quality control monitoring services provided by private companies into a system for public regulation. The diversity of approaches used in different industries for product evaluation and quality control monitoring make standardization particularly difficult and a considerable amount of time and effort have been dedicated to this task. Patience and hard work characterize the contributions of all parties.

The administrative rule implementing Section 553.842, Florida Statutes, establishes uniform procedures for both local and optional state approval of products. While implementation of the system has progressed relatively smoothly for state approvals and most local governments have integrated approval procedures efficiently into their business processes, other building departments report difficulties. In response the Commission appointed a Product Approval Work Group to review the procedures in the rule and develop consensus recommendations for refinements.

The Commission conducted an extensive stakeholder review process to develop consensus recommendations for refinements to the Product Approval System. The Product Approval Workgroup met for over a year and delivered their recommendations to the Commission in March of 2005. Subsequently, the Commission convened an extensive rule development process to adopt and implement the Workgroup's recommendations, as well as the Legislative provisions for local product approval (SB 442 Section 19). Following public input during rule development, the Commission voted unanimously to adopt a package of refinements to the Rule that will become effective on January 1, 2006. Although the specific rule requirements were completed in the summer of 2005, the Commission decided to postpone the effective date since the provisions of the amended Rule require significant changes to the website prior to implementation. The Agency (DCA) worked with stakeholders and the Program Oversight Committee, to identify and implement enhancements to the web-based system, designed to ensure that relevant information needed by Building Departments is easily accessible, and the application process is more user-friendly for product manufactures.

The current rules implementing the product approval system were finalized in 2003 and the system went into effect October 1, 2003. Since that time the Commission has processed 4,499 applications and approved 21,659 products and 123 private entities that evaluate products performance and manufacture. While the system relies on nationally or internationally accredited entities and state licensed engineers and architects to evaluate the performance of products and to monitor their production, the Commission was not staffed to review applications for completeness and verifiability. The initial approach of relying on parties who were contracted by manufacturers to validate applications proved unreliable and staff had to be borrowed from other programs to conduct the minimum application sufficiency reviews. A contractor was hired November, 2004 to take over the review of the applications for approval of products. With the transition to contractor reviews now complete, program staff will be available to conduct the training for manufacturers as originally planned. As expected, program efficiency has greatly improved, and with the System Administrator on board, there is a higher level of understanding of and satisfaction with the product approval system.

Legislation enacted in 2005, based on the work of the Commission's Product Approval Workgroup, made major changes to the local approval of products, clarifying how local approval is to be accomplished by local jurisdictions. The changes to the local system enjoyed the support of system stakeholders and the Building Officials Association of Florida.

The recommendations of the Product Approval Workgroup are included as "Appendix E".

## 7. Building Code Training Program

The state building code system, first established in 1974, was overhauled in 1998 to improve its effectiveness. The Florida Building Code is the centerpiece of the overhaul and the Building Code Training Program is a primary element of the plan to improve compliance and enforcement. It provides incentives and resources to support this objective by providing a focus for code-related education and by coordinating existing training resources, including those of universities, community colleges, vocational technical schools, private construction schools and industry and professional associations.

The Commission developed the Code “core curricula” courses, which all licensees must take once, but additional courses will be developed by educational institutions and private sector training providers. The licensing boards approve these “advanced” topics courses through their general continuing education approval programs. To assist the boards, the Commission created a Course Accreditation Program to review advanced building code courses developed by private providers for compliance with the Florida Building Code and its processes. The Commission approves “course accreditors,” or individuals who have expertise in the Florida Building Code, to review the courses and ensure 100% compliance with the most current edition of the Florida Building Code. After the course has been reviewed and deemed to comply with the Florida Building Code, the accreditor will issue a Certificate of Accreditation.

The Florida Building Code Information System (BCIS) supports the accreditation process in a paperless fashion using electronic “in-boxes” tailored for each group involved in the process. An “in-box” basically provides screens customized for each individual user, directing them to the tasks they need to perform. Workflows depicting the overall process are provided as “Attachment F”.

- **Licensees/Public**
  - Search Courses – Search for courses that have been approved by a Commission-endorsed accreditor.
  - Search Approved Accreditors – Search for accreditors that have been approved by the Commission.
  
- **Accreditors**
  - Application Approval – Submit an application (and \$100 application fee) to the Florida Building Commission to become an approved course accreditor.
  - Course Review – During the course review process, electronically request additional information from the provider.
  - Course Approval/Denial – Submit the final disposition of the accreditor’s course review process (approval or denial).

- **Providers**
  - Register – Submit an application (and \$25 application fee) to the Florida Building Commission to become a registered provider.
  - Course Submission – Submit information to an accreditor for a proposed course. Provide any additional information requested by the accreditor.
  
- **DBPR**
  - Course Notification – Provides notifications when courses have been submitted to an accreditor and when a course has been approved or denied by the accreditor.
  
- **DCA**
  - Application Approval – Enter the Commission’s final disposition for an accreditor’s application.

Although many of the Commission’s functions related to education were assigned to the legislatively created Building Code Education and Outreach Council in 2005, education remains a cornerstone of the building code system. The Commission remains focused on the approval of course accreditors and the courses developed and recommended by approved accreditors, through the creation of the Education Program Oversight Committee (POC). The POC meets at each Commission meeting to review the course and accreditor applications, as well as to consider and develop recommendations related to education and training for the Building Code System. In addition, the Commission is in the process of selecting a Building Code Education Administrator, to provide additional administrative and technical support for the Commission’s education functions. The administrator’s duties will include reviewing applications for education courses and accreditors.

A Voluntary Course Accreditation Program process flow chart is included as “Appendix F”.

## **8. Florida Building Code System Review—Triennial Report**

Florida Statute, Chapter 553.77(1)(b), requires the Commission to make a continual study of the Florida Building Code and related laws and on a triennial basis report findings and recommendations to the Legislature for provisions of law that should be changed.

The Commission conducted a review of the Building Code System for the first time in 2005. In order to maximize stakeholder input, the Commission solicited feedback in the form of an on-line survey (conducted from August through September 16, 2005). The survey was designed and conducted by the Florida Conflict Resolution Consortium at Florida State University. The Commission subsequently convened an Ad Hoc Committee of Commissioner at the October Commission meeting. The Building Code System Ad Hoc Committee met three times, and delivered their consensus package of recommendations to the Commission at their December 2005 meeting, where the Commission adopted its own package of recommendations for enhancements to the Florida Building Code System. The recommendations are:

Provide statutory authority establishing an "expedited amendment" process in Chapter 553 for glitch and correlation (including errata) amendments. The process would allow the Commission to implement expedited amendments using only the standard Chapter 120 rule development procedures.

Require that the sizing of private sewage systems be governed by definitions provided in the Florida Building Code.

Creation of a Senate and/or House committee specific to the Florida Building Code.

The Report of Recommendations of the Florida Building Code System Assessment Ad Hoc Committee is included as "Appendix G".

### **Overview of the Building Code System**

In 1997, the Governor's Building Codes Study Commission recommended that a single state-wide building code be developed to produce a more effective system for a better Built Environment in Florida. It was determined that in order to be effective, The Building Code System must protect the health, safety and welfare of the citizens of Florida, and in doing so:

1. Be simple to use and clearly understood;
2. Be uniform and consistent in its administration and application;
3. Be affordable; and
4. Promote innovation and new technology.

The Study Commission determined that an effective system must address five key components: the Code, the Commission, code administration, compliance and enforcement, and product evaluation and approval.

The Florida Building Code System is comprised of five essential components. A summary of each component follows:

**I. The Florida Building Code and the Code Development Process.** Historically the promulgation of codes and standards was the responsibility of local jurisdictions. It was determined that Florida's system is "a patchwork of codes and regulations developed, amended, administered and enforced differently by more than 400 local jurisdictions and state agencies with building code responsibilities". A critical component for an effective building code system was to develop and implement a single state-wide code.

The purpose of developing a single state-wide Building Code was to:

1. Serve as a comprehensive regulatory document to guide decisions aimed at protecting the health, safety and welfare of all of Florida's citizens.
2. Provide uniform standards and requirements through the adoption by reference of applicable national codes and providing exceptions when necessary.
3. Establish the standards and requirements through performance-based and prescriptive based criteria where applicable.
4. Permit and promote innovation and new technology.
5. Require adequate maintenance of buildings and structures, specifically related to code compliance, throughout the State.
6. Eliminate restrictive, obsolete, conflicting and unnecessary construction regulations that tend to increase construction costs unnecessarily or that restrict the use of innovation and new technology.

The new Florida Building Code is a state-wide code implemented in 2001 and updated every three years. The Florida Building Commission developed the Florida Building Code from 1999 through 2001, and is responsible for maintaining the Code through annual interim amendments and a triennial foundation code update.

**II. The Commission.** The Commission is an appointed representative stakeholder body that develops, amends and updates the Code. The Commission is comprised of members representing each of the key interests in the Building Code System. The Commission meets every six weeks and in addition to their code development responsibilities, regularly consider petitions for declaratory statements, accessibility waiver requests, the approval of products and entities, and the approval of education courses and course accreditors. The Commission also monitors the Building Code System and reports to the Legislature annually with their recommendations for changes to statute and law.

**III. Local Administration of the Code.** The Study Commission recommended, and subsequent legislation maintained, that the Code shall be administered and enforced by local government building and fire officials. The Commission has certain authorities in this respect such as the number and type of required inspections. However, the Commission's main responsibility remains amending the Code, hearing appeals of local building officials decisions, and issuing binding interpretations of any provisions of the Florida Building Code.

**IV. Strengthening Compliance and Enforcement.** Compliance and enforcement of the Code is a critical component of the system with the Commission's emphasis in this regard is on education and training. The Study Commission determined that in order to have an effective system a clear delineation of each participant's role and accountability for performance must be effected. There should be a formal process to obtain credentials for design, construction, and enforcement professionals with accountability for performance. Opportunities for education and training were seen as necessary for each participant to fulfill their role competently. Although many of the Commission's functions related to education were recently assigned to a legislatively created Education Council, education remains a cornerstone of the Building Code System. The Commission remains focused on the approval of course accreditors and the courses developed/recommended by approved accreditors.

**V. Product Evaluation and Approval.** In order to promote innovation and new technologies a product and evaluation system was determined to be the fifth cornerstone of an effective Building Code System. The product approval process should have specific criteria and strong steps to determine that a product or system is appropriately tested and complies with the Code. Quality control should be performed by independent agencies and testing laboratories which meet stated criteria and are periodically inspected. A quality assurance program was also deemed essential. The Commission adopted a Product Approval System by rule and currently approves products for state approval and product approval entities. Local product approval remains under the purview of the local building official as a part of the building permit approval process.

In order to assess the Building Code System, additional key system programs must also be considered. They are as follows:

**A. Building Code Information System.** The Building Code Information System (BCIS) was developed in early 2000 to implement the new responsibilities, business practices, and automated systems required by the Florida Building Code. The BCIS is a multi-functional database that provides building professionals, the general public, local governments, and manufacturers with single-point access to the Florida Building Code, Manufactured Building Program, Product Approval System, Prototype Program, local code amendments, declaratory statements, nonbinding opinions and the interested party list.

Since its initial deployment, significant new functionality has been added to the BCIS in response to new legislation and to accommodate the changing needs of the Commission and DCA. The amount of information now available via the BCIS has more than doubled in the last four years; the number and type of users has correspondingly increased as new needs are addressed. The web site has become more complex and more difficult to locate needed information. As a result, the Department is in the process of updating the BCIS to address the overall accessibility of information contained within the BCIS.

**B. Manufactured Buildings Program.** Chapter 553, Part I, FS, known as the Manufactured Buildings Act of 1979, governs the design, plans review, construction and inspection of all buildings (excluding mobile homes) manufactured in a facility to ensure compliance with the Florida Building Code. Rule Chapter 9B-1 FAC was subsequently adopted by the Commission to adequately govern the program and to ensure that manufacturers and independent Third Party Inspection Agencies maintain performance standards. Inspections agencies qualified under this program and serving as agents for the State, provide construction plan reviews and in-plant inspections. All manufacturers and Third Party Agencies are monitored at least once per year to ensure quality assurance and adequate code enforcement. Manufactured Buildings approved under this program are exempted from local code enforcement agency plan review except for provisions of the code relating to erection, assembly or construction at the site.

**C. Prototype Buildings Program.** Chapter 553.77(5) F.S., Rule 9B-74 Prototype Plan Review and Approval program. The plans review program was developed by the Florida Building Commission to address public and private entities such as buildings and structures that could be replicated throughout the state. This program is conducted by an Administrator delegated by the Commission, this Administrator has qualifications to review plan compliance with the Florida Building Code and certified per the requirements of Chapter 468, F.S. The program Administrator contracts with qualified plans examiners to review Prototype plans for Code compliance with the Florida Building Code and Florida Fire Prevention Code, these plans examiners are certified in Chapter 468 or 633 F.S., or both Chapters 468 and 633, F.S. The prototype plans are reviewed for completeness in a timely manner compliant with Chapter 120 F.S.. Each approved Prototype plan is issued an identification tracking number, this number is used to track replicated plans to local governments. The Administrator regularly attends the Florida Building Commission and reports on the progress of the Prototype Buildings Program.

**D. Alternative Plans Review and Inspections—Private Provider System for Plans Review and Inspection Functions.** §553.791, Florida Statutes, was created in 2002 to allow property owners to utilize the services of a private interest to perform plan review and/or inspection services in lieu of, but subject to review by the local permitting authority. The legislation creating the process also directed the Commission to review the system and report the results to the legislature which was accomplished in the Commission's 03-04 report. In addition, the Commission as a result of a consensus stakeholder process convened in 2004, proposed, additional refinements to the system in the Commission's 04-05 report. In 2005 the Florida Legislature adopted a package of refinement to the system which were signed into law in the summer of 2005.

### **Construction Practices/Quality Assessment Summary**

At the request of Senator Constantine, the Commission conducted an assessment process where Building Code System stakeholders, representing each of the key system participants, were interviewed to determine their views regarding construction practices and quality. The findings from the assessment, based on stakeholder opinions, identified a range of issues and options related to education, training, licensing, enforcement, business practices, and building codes and culminated with recommendations centered around enhanced coordination efforts. In addition, throughout most of 2005, the Commission provided specific opportunities for public comment on this issue during Commission meetings held around the State.

In general, the Commission is proactively addressing construction practices and quality issues through its ongoing code development processes. In fact, as a result of the Legislature's approval of an expedited code adoption process for water intrusion and roof attachment issues, the Commission adopted a package of recommendations for code enhancements.

The Commission continues to evaluate the various studies related to hurricane damage, and in addition to the expedited code amendments it adopted in August, the Commission will be considering additional code enhancements related to hurricane damage investigations during the glitch amendment cycle.

Finally, the Building Code System Assessments process has provided another major forum and opportunity for system enhancements based on stakeholder input and comprehensive review of the Building Code System.

The Construction Practices/Quality Assessment Report is included as "Appendix H".

### **Florida Building Code and Florida Fire Prevention Code—Duplicate Provisions and Overlapping Responsibilities Project**

In order to consider how to address conflicts between the Florida Building Code and the Florida Fire Prevention Code, the Commission conducted an assessment of stakeholder views, and determined there is consensus that as a first step, the technical code provisions should be reviewed and any conflicts resolved between the FBC and the FFPC.

The Joint Building Fire Technical Advisory Committee (TAC) comprised of the Commission's Fire TAC and the State Fire Marshal's Florida Fire Code Advisory Council, convened a process to review the technical provisions and make recommendations for any code changes. The TAC reached consensus on the threshold issue of defining what constitutes a conflict. The Joint Fire TAC agreed to narrowly define "conflicts" to mean requirements that are mutually exclusive, that is, if by satisfying the requirements of one code it would preclude the ability to satisfy the other. It was decided that in most instances, provisions were not conflicts since it was possible to comply with the requirements of both codes, when complying with the requirements of either code. It should be noted that conflicts are generally resolved as a result of complying with statute, requiring resolving the conflict in favor of the provision that offers the greatest lifesafety, or alternatives that would provide an equivalent degree of lifesafety and an equivalent method of construction. The Joint Fire TAC identified the specific Code amendments which could not be resolved by this definition, and submitted proposed amendments for consideration

by the Commission during the glitch cycle. The Joint Building Fire TAC will be reviewing issues related to any further partitioning of the codes, and the overlapping jurisdictional and enforcement issues during 2006.

It should be noted that the Florida Building Commission has not had an opportunity to review the specific recommendations from the Joint Fire TAC prior to the drafting of this report, and voted unanimously at their December 2005 meeting, that the Commission does not agree with the TAC's recommendation regarding what constitutes a "conflict" and will be working with stakeholders to study this issue further during the 2006 annual interim/2004 glitch amendment process, where the recommendations will be considered by the Commission.

The Building/Fire Assessment Report is included as "Appendix I".

### **International Code Council (ICC) Code Development Participation by the Commission**

The Commission convened a facilitated stakeholder group to make recommendation regarding how the Commission should participate in the ICC code development process. In general, as a result of limited resources and a need to focus on the Florida Building Code, the Commission determined that Florida's existing network of ICC participants, with the Building Officials of Florida (BOAF) as lead, should propose code amendments to the Commission through the TAC review process. This means that the Commission will not participate in a formal manner in the International Code development process, and will instead rely on the existing network of participants to monitor developments.

The Commission is required by law to update the Florida Building Code (Code) every three years, and this update process is based on the code development cycle of the national model building codes which serve as the "foundation" codes for the Florida Building Code. National model building codes and most engineering standards are also updated every three years. This ensures that the Commission reviews and considers the appropriateness for Florida, of adopted changes to the International Family of Codes.

The ICC Participation Workgroup Report is included as "Appendix J".

## 7. Summary of Recommendations

Monitoring the Building Code System and determining refinements that will make it more effective is a primary responsibility of the Commission, and it continually makes refinements by administrative rule amendment where statute delegates authority. However, the system is established in law so some refinements require amendment of statute. The Commission's recommendations for legislative actions that will improve the system's effectiveness are summarized as follows:

- Provide statutory authority for an "expedited amendment" process in Chapter 553, F.S. for glitch and correlation (including errata) amendments to new editions/updates of the Code. The process would allow the Commission to implement expedited amendments using only the standard Chapter 120 rule development procedures.
- Require that the sizing of private sewage systems be governed by definitions provided in the Florida Building Code.
- Recommend that the Legislature create a Senate and/or House committee specific to the Florida Building Code.
- Eliminate the Commission's authority to issue declaratory statements or binding interpretations regarding Chapter 11 of the Code, the Florida Accessibility Code of Building Construction. This would not affect the Commission's authority to issue waivers from accessibility requirements pursuant to authority granted in 553.512(1) F.S.
- Remove the Panhandle Windborne Debris Region definition from law, thereby authorizing the Commission to develop and adopt a new definition within the Code by administrative rule.
- Remove the Exposure Category C definition from law, thereby authorizing the Commission to develop and adopt a new definition within the Code by administrative rule.

**APPENDIX A**

**FLORIDA PANHANDLE WINDBORNE DEBRIS REGION WORKSHOP**

**REPORT TO THE FLORIDA BUILDING COMMISSION**

**September 13, 2005**

**Okaloosa County Regional Airport, Florida**

**Meeting Design & Facilitation By**



**Report By Jeff A. Blair  
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## **FLORIDA BUILDING COMMISSION**

### **PANHANDLE WINDBORNE DEBRIS REGION WORKSHOP REPORT SEPTEMBER 13, 2005**

#### **OVERVIEW**

The 2005 Florida Legislature debated whether to revise the definition of the windborne debris region along the panhandle coast from Franklin County to the Alabama border and determined further study was warranted. It directed the Florida Building Commission to review the effects of Hurricane Ivan on damage caused by windborne debris and in conjunction with building officials from the impacted areas, to develop a recommendation for consideration by the 2006 Legislature.

The windborne debris region review is being conducted by the Commission who will consider the input of researchers who studied the effects of Hurricanes Ivan and Dennis, building officials of the impacted jurisdictions, and other interested parties is sought to assess the current knowledge of how hurricane winds impact this area of the State and to develop recommendations for changes to regulatory requirements and/or further investigations.

On September 13, 2005, The Florida Building Commission convened a workshop at the Okaloosa County Regional Airport, for the purpose of soliciting input from local building officials and other interested stakeholders, regarding whether the definition of the windborne debris region of the Florida Panhandle region should be revised.

The Workshop design provided a format for researchers to present the results of their studies related to recent Florida Hurricanes, and for local building officials to provide their observations and views resulting from the hurricanes. In addition, all interested stakeholder were provided an opportunity to comment on their observations and opinions.

#### **REPORT OF THE SEPTEMBER 13, 2005 WORKSHOP**

##### **Opening**

Rick Dixon, Florida Building Commission Executive Director, opened the workshop and explained the scope of the workshop.

##### **DCA Staff Present**

Rick Dixon, Ila Jones, David Littlejohn, Mo Madani, Jim Richmond, and Betty Stevens.

##### **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, workshop reports, and related documents may be found at the project webpage: <http://consensus.fsu.edu/FBC/wd.html>

## **Agenda Review**

Jeff Blair reviewed the agenda with workshop participants. The agenda included the following objectives:

- To Review the Charge to the Commission by Senate Bill 442.
- To Receive Reports on Windborne Debris from Hurricane Studies.
- To Receive Reports on Windborne Debris from Building Officials.
- To Consider Public Comment.
- To Evaluate Possible Options Regarding Windborne Debris Protection.

## **Presentation on DCA Triage Team Observations of Hurricanes Ivan and Dennis**

Rick Dixon presented a PowerPoint presentation on observations from Hurricanes Ivan and Dennis.

## **Presentation on Florida Coastal Monitoring Program Wind Surveillance and Survey Of Hurricanes Ivan and Dennis**

Kurt Gurley from the University of Florida presented findings on the results of the Florida Coastal Monitoring Program related to Hurricanes Ivan and Dennis.

## **Presentation on FEMA Mitigation Assessment Team Report on Hurricane Ivan**

Tom Smith, consultant to FEMA, discussed the FEMA Mitigation Assessment Team's report related to Hurricane Ivan.

## **Discussion of Building Officials Observations of Windborne Debris Damage**

Local building officials were invited to present their observations and opinions regarding windborne debris effects in the Panhandle region during Hurricanes Ivan and Dennis, as well as past hurricanes affecting the region. Members of the North West Florida Chapter and Panhandle Chapter of BOAF offered their observations and recommendations.

Nine Building Officials from the Panhandle Region offered their opinions, and with one exception, agreed that changes were not warranted at this time to the definition of the windborne debris region of the Florida Panhandle region. The one exception expressed support for converting to the existing ASCE 7 definition. The other eight building officials' comments ranged from most damage was related to surge and not windborne debris, to the Panhandle is a unique environment that ASCE 7 does not adequately reflect, to extra windborne debris protection should be voluntary and not mandatory, to mandatory protection will increase the cost of already unaffordable housing in the region.

In addition, during the discussion and evaluation of options portion of the workshop, local building officials expressed support for conducting studies specific to the region that would evaluate the affects of the treed environment, other unique features of the region, and consider

recent wind data and research related to windspeed revisions, prior to considering changes to the existing windborne debris region definition.

### **Presentation on ARA Wind and Damage Modeling**

Larry Twisdale and Peter Vickery presented data on wind and damage modeling conducted by Applied Research Associates (ARA). In general, the presentation focused on a recommendation that an engineering based risk assessment of hurricane windborne debris protection options for the Panhandle should be conducted in order to analyze the risks, costs, and benefits of windborne debris protection. The research would focus on factors unique to the Panhandle region including treed areas inland of the coast, and consider historical wind data affects.

### **Process Overview**

Jeff Blair explained that based on the researchers and local building officials presentations, there were four basic options that the workshop participants should evaluate. The four options were reviewed, an extensive opportunity for public comment was provided, the four options were evaluated by all participants, and participants were provided an additional opportunity to express support and reservations related to the four options after the evaluation exercise. Participants were invited to express their views until their were no individuals wishing to speak further.

### **Options for Evaluation**

- Option 1. No Changes, leave the Panhandle WBD definition as is.**
- Option 2. Conduct additional studies on treed environment effects, and historical wind data affects prior to considering any changes.**
- Option 3. Covert to ASCE-7 definition immediately ( as soon as logistically possible).**
- Option 4. Define the Panhandle WBD region, using a hybrid definition.**

### **Comments Offered Prior to Evaluation of the Options**

- Leave the WBD definition as it is; only cosmetic damage in this region; tidal surge is the cause of damage; it is not acceptable to change the WBD definition.
- No personal experience with windows breaking in even 1930's houses; extending the WBD is unnecessary; I feel safe and do not board up or evacuate for hurricanes; need to keep housing costs as low as possible, revising the definition will increase house costs in this region; low wages in this region for construction and service workers makes affordable housing critical; the price of housing has doubled recently; people will not be able to afford to live here; affluent people on the coast can afford to pay for the protection and WBD protection is already required there and not necessary inland.

- One mile from the coast is the way it should stay; it should be voluntary elsewhere; there should be incentives such as reduced insurance premiums for voluntary use of WBD protection.
- IBHS survey indicates that 73% of homeowners contacted in the Panhandle support windborne debris protection requirements for the region; the Panhandle received 50% of the hurricanes in Florida and is the hurricane alley; there is a high probability the Panhandle will sustain a major storm in the future.
- State Farm spent over a billion dollars in damage resulting from hurricanes in the region; the Panhandle deserves the same protection as the rest of the State; I can't believe there is an exemption for this region!
- Damage in this regions was not from wind borne debris, but from water surge; FBC constructed buildings did not suffer major damage; WBD protection is not necessary; I would like to see treed environment study conducted.
- I have not seen WBD damage at my house; would like to see treed environment study, and what about the local continental shelf affects on storm damage, this should also be studied.
- Have not seen a design event in this region yet; should not have less stringent standards in the Panhandle; support adopting ASCE 7 for the Panhandle.
- University building in Pensacola is designed to withstand 200 mph; show me that ASCE 7 is correct; there are 3 ways to measure category strength of hurricanes, we have pressure but not high wind speed here; it is too expensive to build to higher standards that are not needed; something is different in the Panhandle region that lowers wind speeds.
- Need to consider cost effective alternatives for those in the WBD region in any studies conducted; costs should also be evaluated.
- Water intrusion resulting from WBD damage beyond 1 mile occurs; need to revise maps and protect people in this region.
- Broken glazing from WBD causes major structural damage, even 30 mile from the coast. Consumers in the Panhandle are largely unaware there are lower WBD protections requirements only 1 mile from the coast.

## EVALUATION OF OPTIONS, RESERVATIONS, AND ADDITIONAL COMMENTS

### Option 1. No Changes, leave Panhandle WBD definition as is.

	<i>4=acceptable</i>	<i>3= minor reservations</i>	<i>2=major reservations</i>	<i>1= not acceptable</i>
<i>Ranking</i> <i>9/13/05</i>	<b>0</b>	<b>10</b>	<b>6</b>	<b>17</b>

### Reservations and Comments:

- What does the study say, need a study first.
- Need more information.
- We are less stringent than the minimum national standards, we will see more storms, want to get something done right away to increase WBD requirements.

- ASCE 7 has Arbitrary lines, and has no scientific meaning.
- Difference between 120 and 150 mph winds is exponential, and 5 x more likely to suffer debris damage at increased wind speeds.
- Florida is the highest risk state in the nation, need to provide protections.

**Option 2. Conduct additional studies on treed environment effects and historical wind data affects prior to considering any changes**

	<i>4=acceptable</i>	<i>3= minor reservations</i>	<i>2=major reservations</i>	<i>1= not acceptable</i>
<i>Ranking 9/13/05</i>	<b>14</b>	<b>13</b>	<b>4</b>	<b>1</b>

**Reservations and Comments:**

- Concerned about the time required to conduct studies, we need to act now.
- The problem with modeling with treed area is that it is a moving target since trees are cut and development continually alters the environment and will affect the model.
- We also loose trees from storms, can't count on trees remaining in the region.
- The forests n Eglin Air Force base protects Crestview, and that will never change.
- National standards should be the basis for changes, ASCE 7 is a consensus standard and should be required in the Panhandle region.

**Option 3. Covert to ASCE-7 definition immediately (as soon a logistically possible).**

	<i>4=acceptable</i>	<i>3= minor reservations</i>	<i>2=major reservations</i>	<i>1= not acceptable</i>
<i>Ranking 9/13/05</i>	<b>16</b>	<b>4</b>	<b>5</b>	<b>9</b>

**Reservations and Comments:**

- Don't want to have a knee jerk reaction, we need further study to justify revisions to the definition.
- Change in the next session, when the ASCE 7 lines change. Wood is an inexpensive way to provide protection.
- Partially enclosed option will be allowed until January 08 when the ICC changes are adopted.

**Option 4. Define the Panhandle WBD region, using a hybrid definition.**

	<i>4=acceptable</i>	<i>3= minor reservations</i>	<i>2=major reservations</i>	<i>1= not acceptable</i>
<i>Ranking 9/13/05</i>	<b>5</b>	<b>6</b>	<b>14</b>	<b>8</b>

**Reservations and Comments:**

- Don't make adjustments without rational data, strong winds cause damage, trees fall and degrade forest areas, make change based on a study.

- ASCE 7 is a living document, it changes every 3 years, and is updated with new data.
- This option will leave us in the same place we are right now, different from the rest of the State, with a political solution and not a science based decision.
- Don't want to see hybrid definitions, need to go through national consensus standards, this will apply to other similar areas.
- Support national consensus standards as the basis for WBD requirements; base on the coastal monitoring project data and results.

### **Additional Comments**

- We see hurricane damage as natural disasters when they are man made events since we put buildings in areas that are vulnerable to storms.
- Trees are a factor with the winds, population in Panhandle is not same as in other areas of the State; based on a review of permits issued in Charlotte County, older buildings are damaged and data indicates we will save lives and property with newer buildings, need to mitigate now to safe lives and money later.
- We hear the same comments over the years, that homes not affordable if we provide protection. This is not true, home builders can not build fast enough to meet demand. They will continue to sell if WBD protection is provided.
- Height of trees in relation to height of buildings can be compensated for in studies, even in new developments where trees are planted. Model consider the relative height of trees to buildings, ASCE 7 development will require a 3 or 6 year duration. Our study could use recently collected data, and be completed in 6 months. The 120 line is a judgment call, the work is not yet finished, tall tree environments may affect wind speeds, and the 120 line will probably will be compressed once historical data is analyzed and incorporated into the standards.
- The ASCE 7 committee would look at the study and consider as part of their deliberation, 05 is being printed, we may go to 5 year cycle. I recommend that we proceed to adopt ASCE 7 now and make adjustments later.
- Could the study be completed in time for the Commission to make recommendations to the 2006 legislature. Answer: it is possible.
- I became homeless from Charley, make sure you are protecting people.

**APPENDIX B**

**PRODUCT APPROVAL VALIDATION WORKGROUP'S  
RECOMMENDATIONS**

**REPORT TO THE FLORIDA BUILDING COMMISSION**

**DECEMBER 5, 2005**

**Tampa, Florida**

**Meeting Design & Facilitation By**



**Report By Jeff A. Blair  
Florida State University**



**[jblair@fsu.edu](mailto:jblair@fsu.edu)  
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**FLORIDA BUILDING COMMISSION**  
**PRODUCT APPROVAL VALIDATION WORKGROUP REPORT**  
**DECEMBER 5, 2005**

**OVERVIEW**

Raul L. Rodriguez, AIA, Chair of the Florida Building Commission, made appointments to the Product Approval Validation Work Group and they are listed below. Members are charged with representing their stakeholder group's interests, and working with other interest groups to develop a consensus package of recommendations for submittal to the Florida Building Commission.

Chairman Rodriguez appointed a workgroup, per legislative assignment, to review the issue of third party validation and report back to the Commission. The Chair assigned Jeff Blair to work with DCA staff to conduct the meetings.

Chairman Rodriguez stated that the purpose and charge for the Product Approval Validation Workgroup is to review the role of the third party validators in the product approval process, and to make recommendations back to the Commission regarding to what extent the validators should review the technical documentation substantiating compliance with the Florida Building Code. The Chair instructed, that the review the Workgroup is charged to conduct is not related to the Commission's contracted administrator's role, and that the administrator's role is and remains under the purview of the Product Approval POC and the Commission.

The Florida Building Commission shall convene a workgroup composed of at least 10 stakeholders in the state system of product approval, which may include a maximum of three members of the commission to ensure diverse input. The workgroup shall study the recommendation that the state be served by a single validation entity for state approval, which study shall include, but not be limited to, the recommendation's feasibility, qualifications of the single entity and its staff, costs charged for validation, time standards for validation, means to challenge the validator's determination, and duration of the contract with the validator. The workgroup shall conduct its proceedings in an open forum subject to comment from the public at each meeting.

**Members and Representation**

Architects Larry Schneider	Contractors Ed Carson	Evaluators Jon Hill and Sig Valentine
Building Officials Bill Dumbaugh and Herminio Gonzalez	Engineers Jimmie Buckner	Product Manufacturers Craig Parrino and Randy Shakleford
Insurance Do Kim		

## **REPORT OF THE DECEMBER 5, 2005 MEETING**

### **Opening and Meeting Attendance**

Jeff Blair, Commission Facilitator, opened the meeting at approximately 8:00 AM, and the following Workgroup members were present :

Jimmy Buckner, Ed Carson, Bill Dumbaugh, Herminio Gonzalez, Do Kim, Craig Parrino, Randy Shakleford, and Sig Valentine.

### **DCA Staff Present**

Rick Dixon, Dennis Harquail, Ila Jones, Mo Mandani, and Betty Stevens.

### **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 at the project webpage: <http://consensus.fsu.edu/FBC/pavwg.html>

### **Agenda Review**

Jeff Blair reviewed the agenda with members and the public. The agenda included the following objectives:

- To Approve Regular Procedural Topics (Agenda and Report)
- To Hear an Overview of Workgroup's Consensus Recommendations
- To Ensure Report Language Implements/Captures Workgroup's Intent
- To Consider Public Comment
- To Adopt Package of Consensus Recommendations for Submittal to the Commission
- To Hear an Overview of Next Steps

### **Overview**

The Committee studied the Commission's recommendation that the state be served by single validation entity and after considering the feasibility of the recommendation—including reviewing qualifications of the single entity and its staff, costs charged for validation, time standards for validation, means to challenge the validator's determination, and duration of the contract with the validator—determined that additional considerations should be evaluated prior to making a recommendation to the 2006 Legislature

The Committee was asked to review their previous package of recommendations (see October 12, 2005 PAVWG Report included as “Attachment 1”) including recommending that the Commission seek statutory authority to eliminate the third party validation entity in the validation process, and to contract with a single qualified entity (system validator) to conduct this function. After discussion and public comment, a straw poll was conducted on the threshold question of whether to support the single validation entity recommendation (5 members in support), or recommending against the single validation entity (3 members in support). Since there was not consensus for either option, a third option was proposed providing that additional issues should be considered prior to making a recommendation.

### **Recommendation to the Florida Building Commission**

#### **Committee Action:**

The PAVWG voted 6 – 2 in support, to recommend that the Florida Building Commission convene a process to work with stakeholders to review and develop consensus recommendations regarding the validation requirements/details for each of the four compliance methods, the degree of technical review required for the compliance options, and a review of the validation requirements for the certification agency compliance method.

The Committee concluded, that after addressing the various aspects of the study outlined in SB 442, in order to make a consensus recommendation on the threshold “single validation entity” issue, the technical requirements of validation should be assessed first, and pending the results a better informed recommendation could be rendered.

The PAVWG recommends that the Commission report to the Legislature, that the Commission is working with stakeholders to develop additional clarifications and/or requirements related to validation, and will report their recommendations regarding the “single validation entity” to the 2007 Legislature.

## **PRELIMINARY RECOMMENDATION FROM OCTOBER 12, 2005**

### **Recommendation Summary**

Jeff Blair reviewed the results of the options ranking exercise conducted at the August meeting, and members were asked to conduct a second ranking of the options that enjoyed support from the previous meeting. Members and the public were then asked to express their comments and reservations, and members were asked to do an additional ranking based on comments and/or revisions to the options.

The members voted unanimously, 10 – 0 in favor, to support the following recommendation to the Florida Building Commission:

**Validation Entity.** The Product Approval Validation Workgroup recommends that the Commission seek statutory authority to eliminate the third party validation entity in the validation process, and to contract with a single qualified entity (system validator) to conduct this function.

Clear criteria will be developed to ensure that the validator has the technical, staffing, and resource requirements necessary to perform the function in the required time frame, and will address specific criteria regarding the validators use of subcontracted labor.

The Commission will standardize compliance options for different product categories, and develop acceptance criteria for each of the four compliance options. The Commission will work with stakeholders to develop consensus criteria specific to the four compliance options, once statutory authority is granted to the Commission.

The validation process will involve a technical and administrative review specific to the compliance options.

Validations shall be performed in accordance with guidelines developed and approved by the Product Approval POC.

## **Additional Criteria Established**

### **Qualifications**

Florida Professional Engineers or Florida Registered Architects with demonstrated structural competence.

- Must demonstrate technical competency, familiarity with subject area, and knowledge of the Florida Building Code and related standards.
- Must demonstrate applicable work experience in field.
- Must have sufficient staff to support the work load.
- Must have offices in Florida.

### **Costs/Fees**

A fee schedule will be developed specific to the compliance method, based on the level of review required for each of the compliance methods.

### **Time to Validate**

Time allowed for validation will be based on a time schedule specific to the compliance method, based on the time required and level of review involved relative to each method.

### **Appeal/Challenge**

The Commission shall establish procedures for appeals (consistent with Chapter 120 procedures).

### **Duration of Contract**

The contract shall be issued for a three year period.

### **Selection of the Validator**

The single validator shall be selected through an RFP process approved by the Product Approval POC. The POC will review the RFP's and make the recommendation to the Commission regarding who the validator should be.

### **Scope of Validation**

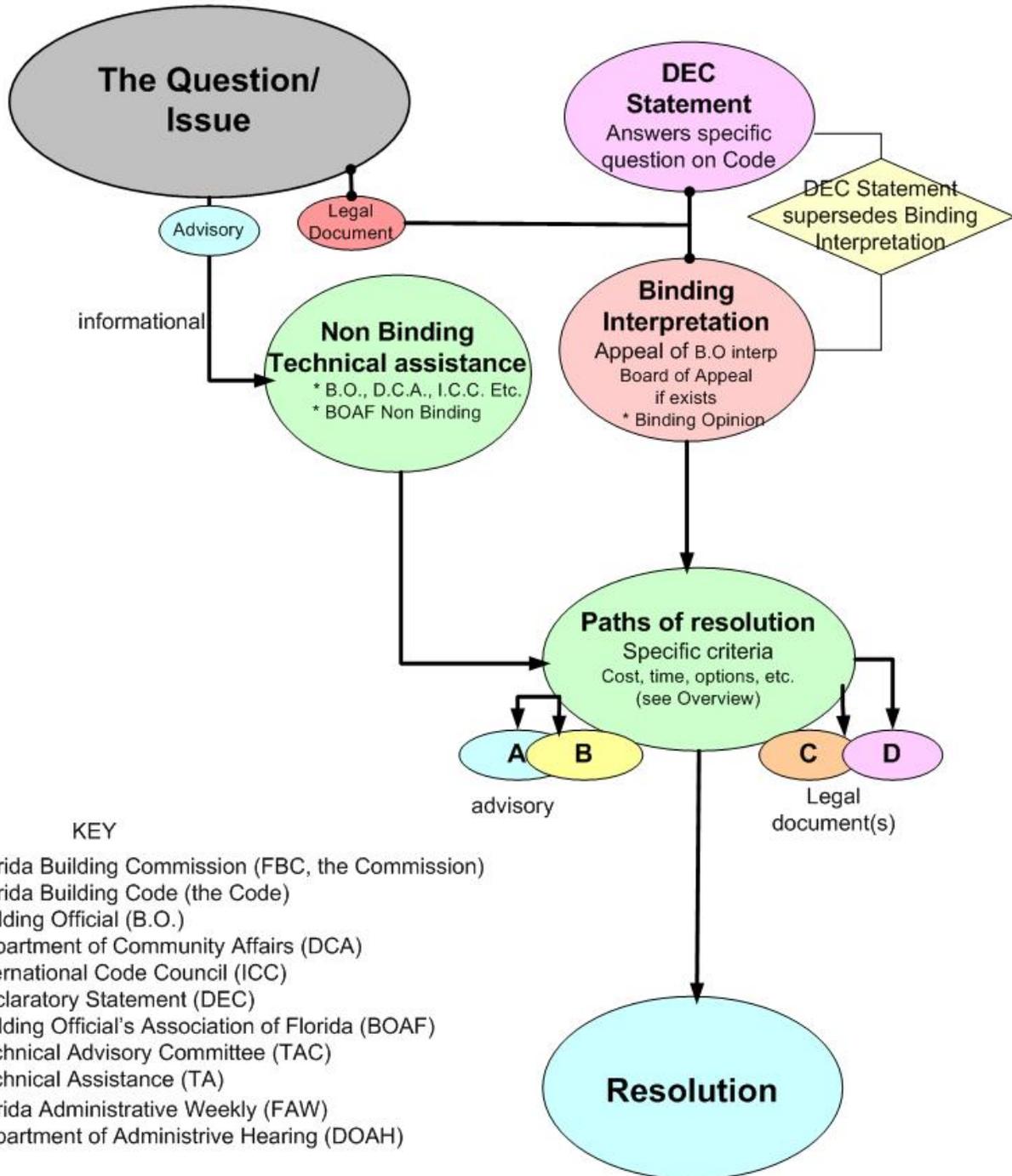
Validations shall be performed in accordance with guidelines developed and approved by the Product Approval POC.

### **Criteria for Validation Specific to Compliance Method**

The current validation checklist will be used, with clarification that a technical review is a part of the validation process. The Commission will work with stakeholders to develop consensus criteria specific to the four compliance options, once statutory authority is granted to the Commission.

# APPENDIX C

## Code Resolution Process

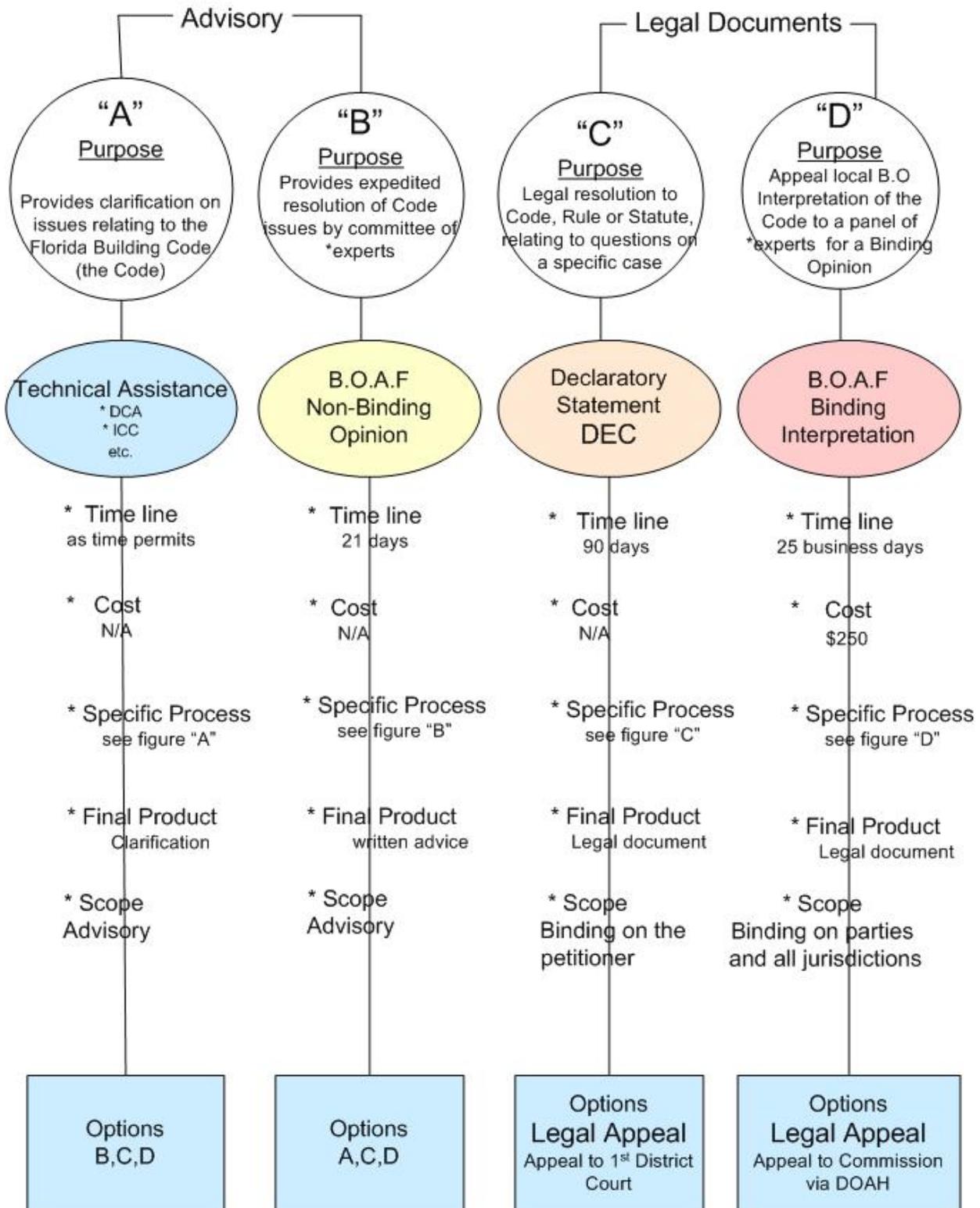


**KEY**

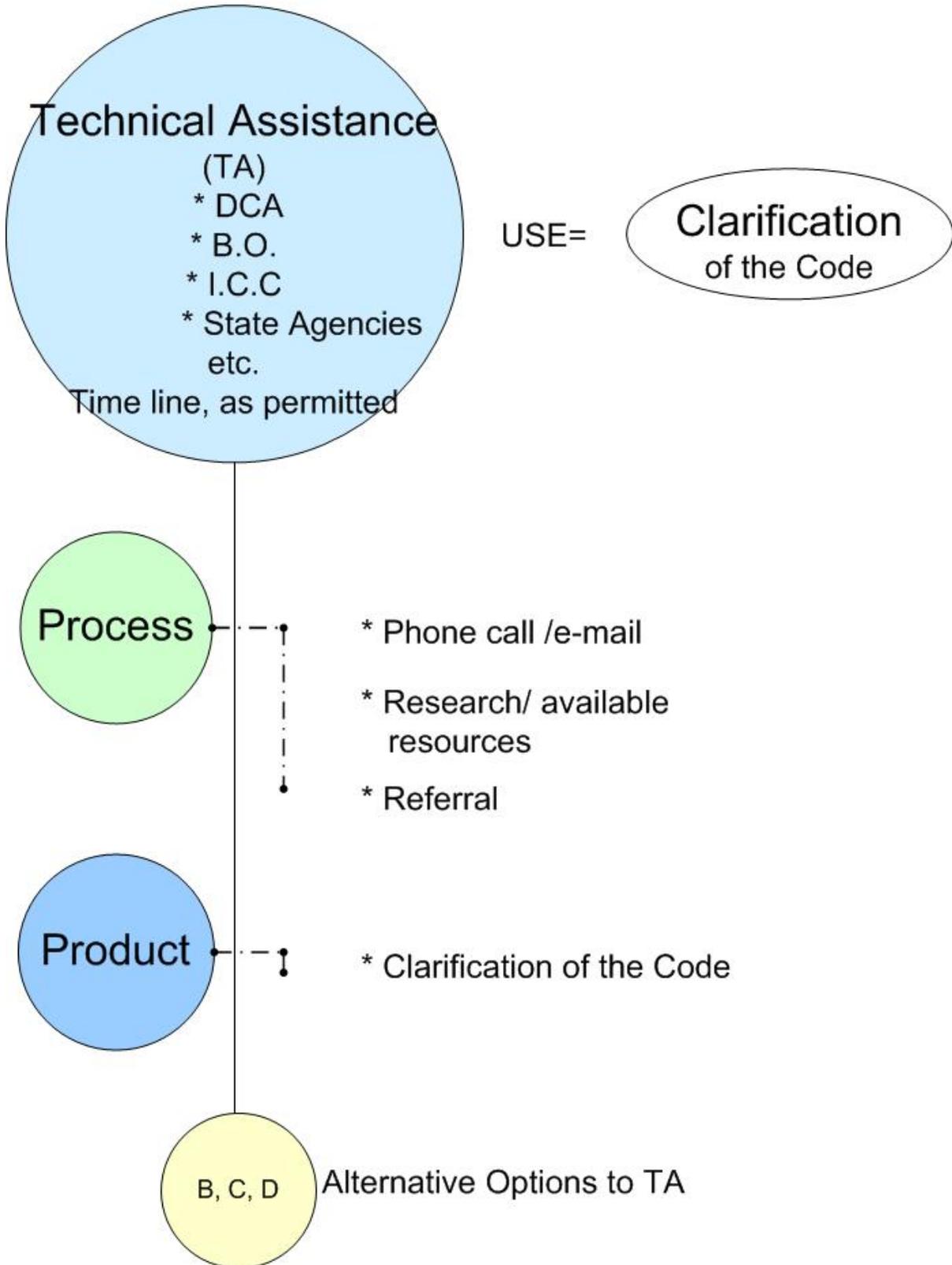
- Florida Building Commission (FBC, the Commission)
- Florida Building Code (the Code)
- Building Official (B.O.)
- Department of Community Affairs (DCA)
- International Code Council (ICC)
- Declaratory Statement (DEC)
- Building Official's Association of Florida (BOAF)
- Technical Advisory Committee (TAC)
- Technical Assistance (TA)
- Florida Administrative Weekly (FAW)
- Department of Administrative Hearing (DOAH)

Note: Licensing facilities and state agencies enforcing the Code may be subject to an alternative process

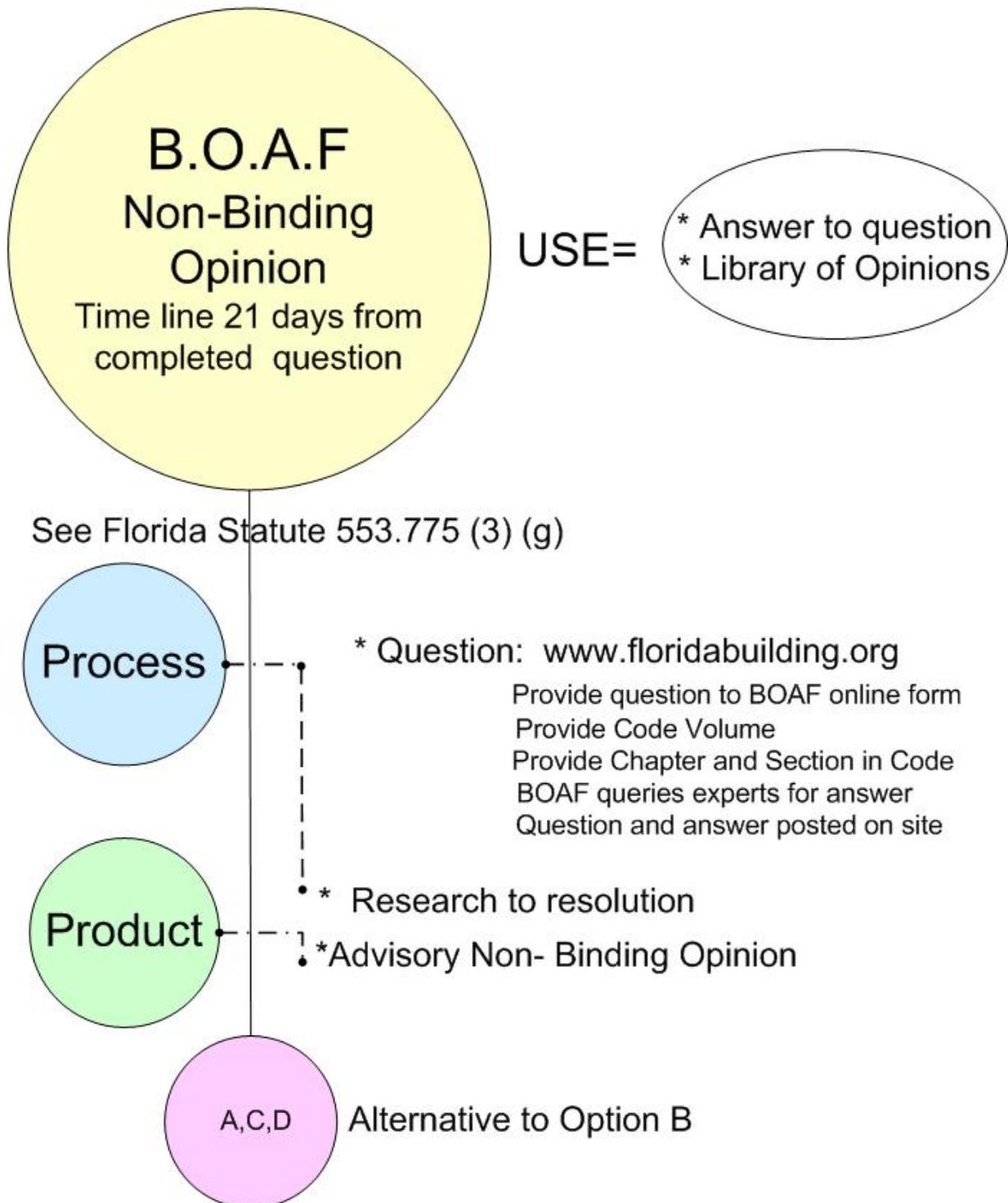
# Overview of Code Resolution process



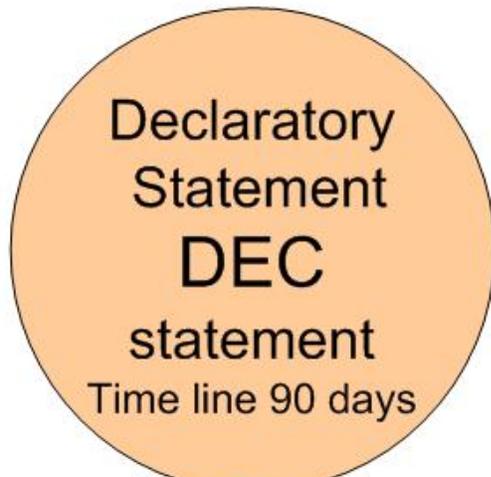
# Path to Resolution "A"



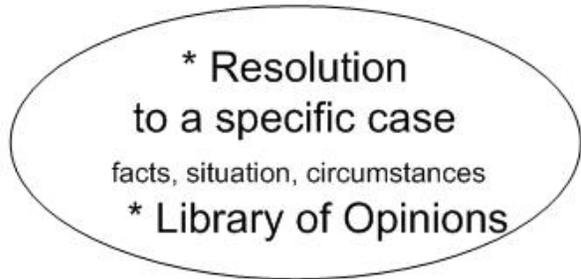
# Advisory Path to Resolution "B"



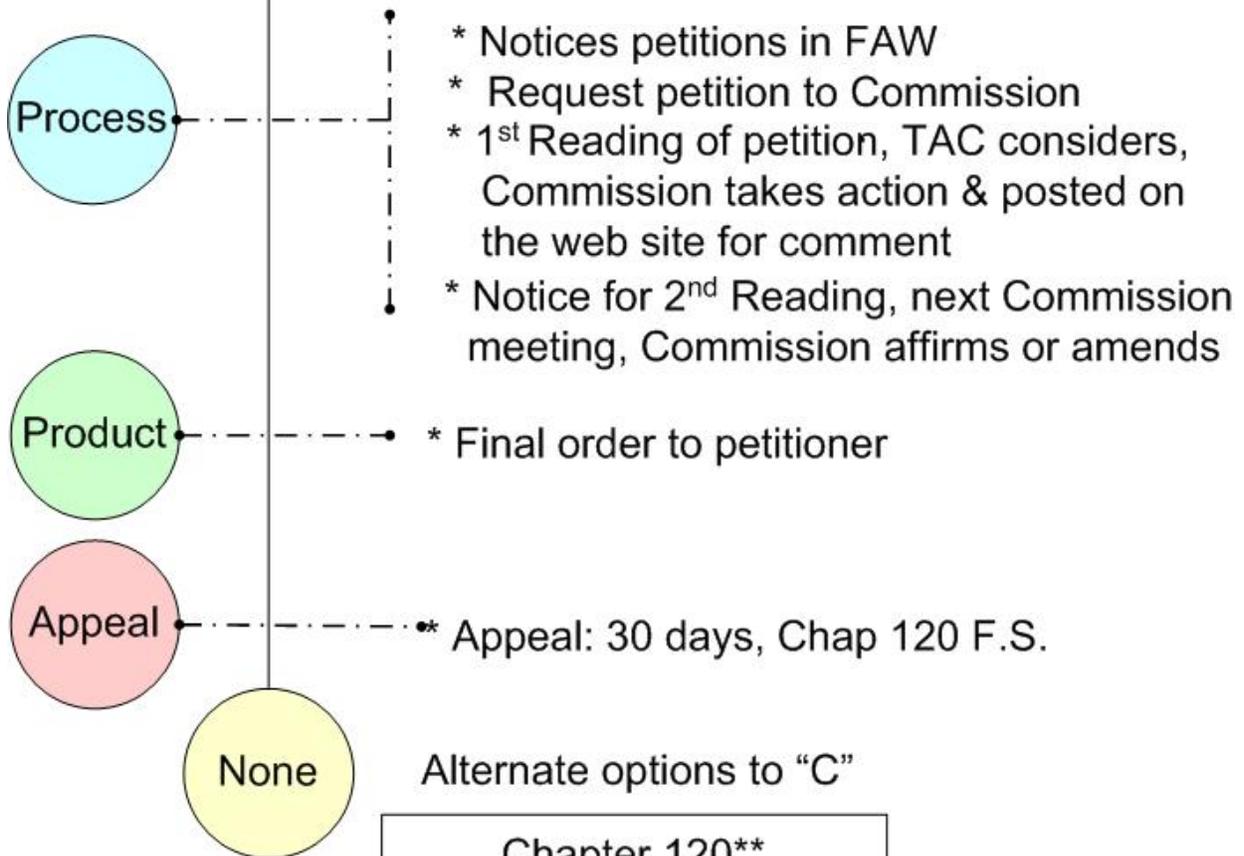
# Appeal process Path to Resolution "C"



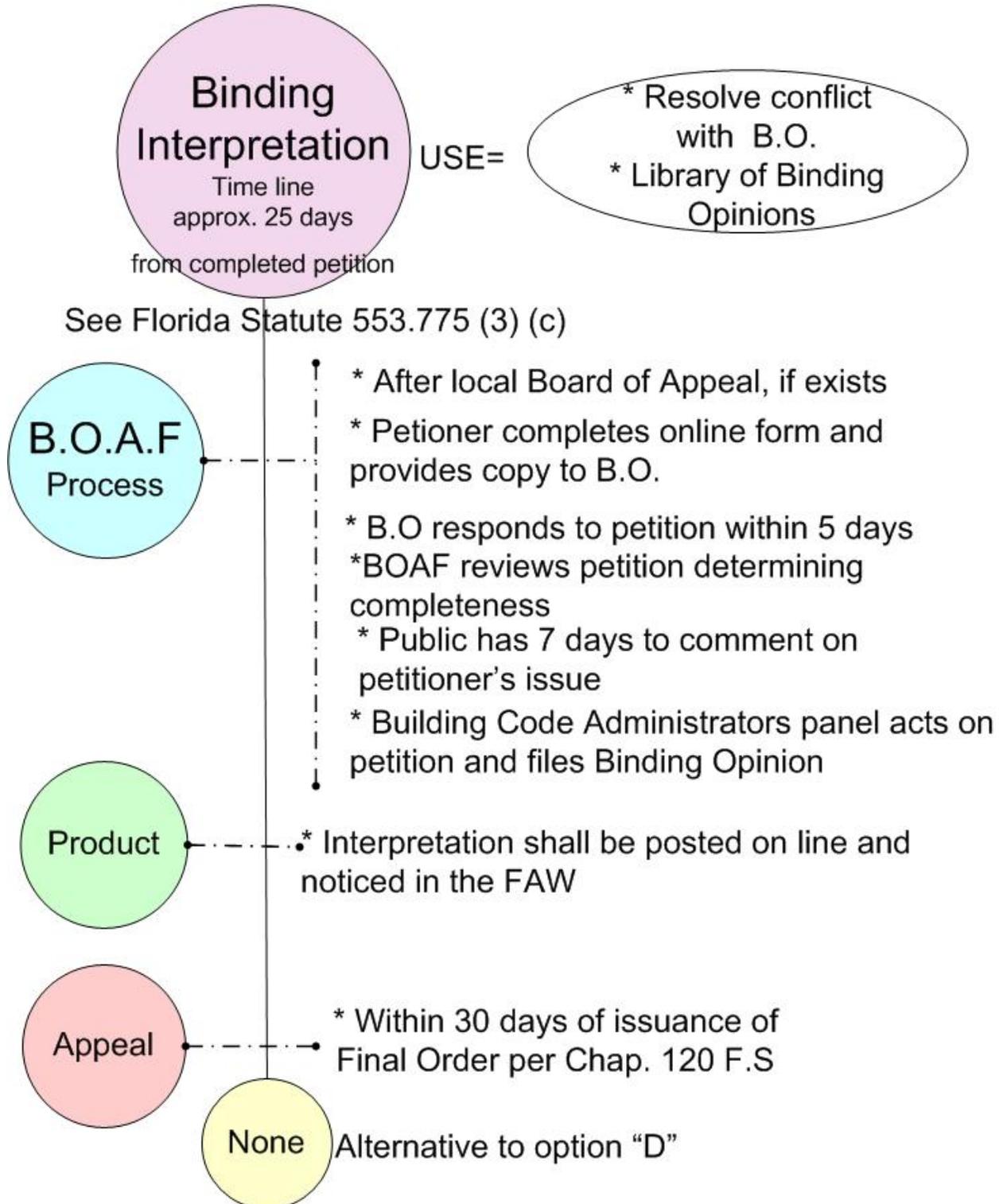
USE=



See Florida Statute 553.775 (3) (a)  
Chapter 120\*\*



# Appeal process Path to Resolution "D"



**APPENDIX D**

**HURRICANE RESEARCH ADVISORY COMMITTEE  
REPORT TO THE FLORIDA BUILDING COMMISSION**

**DECEMBER 6, 2005**

**Tampa, Florida**

**Meeting Design & Facilitation By**



**Report By Jeff A. Blair  
Florida State University**



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**FLORIDA BUILDING COMMISSION**  
**HURRICANE RESEARCH ADVISORY COMMITTEE REPORT**  
**DECEMBER 6, 2005**

**OVERVIEW**

At the January 26, 2005 Commission meeting, Chairman Rodriguez appointed a small coordinating group consisting of Commissioners and other stakeholder representatives, charged with identifying what research is being conducted related to building failure issues resulting from the 2004 hurricanes, identifying any research gaps on key issues identified but not being researched, and finally, to ensure that the Commission is provided with all relevant research findings on each of the major issues, prior to the Commission considering code enhancements resulting from lessons learned.

Following is the chronology of events and subsequent Commission actions resulting from the 2004 hurricanes.

- Hurricane Charley hit on August 13, 2004 near Cayo Costa, Florida.
- Commission met in Miami on August 29 – 31, 2004 and staff presented early observations from the storm.
- Hurricane Francis hit on September 6, 2004 over Southern Hutchinson Island, Florida.
- Hurricane Ivan hit on September 16, 2004 between Gulf Shores, Alabama and Pensacola, Florida.
- Hurricane Jeanne hit on September 26, 2004 near Stuart, Florida.
- The Commission met on October 18 – 19, 2004, following three additional hurricanes and presented preliminary data collected from the four storms.
- The Commission met on December 6 – 8, 2004 and a hurricane researchers workshop co-sponsored by the Commission and the Institute for Business and Home Safety, was held on December 6, 2004.
- On January 12, 2005 the Florida Homebuilders Association released an assessment report concerning water intrusion during the 2004 hurricanes.
- At the Commission's January 2005 Commission meeting the Chair convened a workgroup to assist the Commission by ensuring they have all relevant research on each of the key issues identified during the hurricane assessments to assist the Commission with any needed code enhancements.
- At the Commission's January 2005 meeting, the Florida Home Builders Association presented findings and recommendations regarding water intrusion.
- On March 16, 2005 the Commission held a joint session with the Hurricane Research Advisory Committee and heard presentations and recommendations on studies related to water intrusion, building code performance, roof tiles, and the design of aluminum structures.

- At the May 10, 2005 meeting of the Hurricane Research Advisory Council the committee heard additional presentations and recommendations on water intrusion, and a window assessment failure study. In addition, at the May 10, 2005 meeting of the Hurricane Research Advisory Council, the committee was asked to make the following preliminary determinations relative to the various recommendations: First, based on the studies and related recommendations, do members support the recommendation, and second should the recommendation be recommended for early implementation (as a part of the legislative authorization for expedited code amendment implementation for hurricane related provisions) or should it be reviewed and considered through the regular Commission code amendment process. The HRAC evaluated each of the options and identified a preliminary list of options recommended for expedited code adoption as well as options that were recommended for adoption through the normal code amendment process.
- At the June 28, 2005 meeting of the Hurricane Research Advisory Council the committee was asked to further consider those options that received a consensus for the recommendations and a 50% or greater level of support for expedited code adoption. The HRAC evaluated these as well as additional options identified by members. At the conclusion of the June meeting, the HRAC reached consensus on a package of recommendations for submittal to the Commission. The recommendations were for amendments recommend for expedited code adoption.
- Hurricane Dennis hit on July 10, 2005 in the Western Florida Panhandle region of the State, between Pensacola Beach and Navarre Beach Florida.
- At the August 23, 2005 meeting the HRAC evaluated issues for consideration during the glitch code amendment process, and identified needed information for developing recommendations.
- Hurricane Katrina landed on August 25, 2005 near the Miami-Dade Broward County Line in Florida, and on August 29, 2005 hit Plaquemines Parish Louisiana just south of Buras La, and again at the Gulf Coast border of Louisiana and Mississippi.
- At the October 10, 2005 meeting members reviewed the results of Commission action regarding expedited code amendments, and reviewed assignments and project status.
- Hurricane Wilma landed on October 24, 2005 near Cape Romano Florida and crossed the Florida Peninsula just north of Palm Beach.
- At the December 6, 2005 meeting, members heard presentations on observations from Hurricane Wilma damage to South Florida.

The Chair appointed the following members to the group and charged them with representing their respective interest groups during the course of their meetings:

## **MEMBERS AND REPRESENTATION**

Raul Rodriguez, AIA, Chair	Architects
Chris Schulte	Roofing contractors
Do Kim, P.E.	Insurance industry
Nick D'Andrea, CBO	Building officials
George Wiggins, CBO	Local government
Craig Parrino, P.E.	Product manufacturers (concrete products)
Tim Reinhold, PhD, P.E.	Insurance industry/Researchers
Joe Crum, CBO (President, BOAF)	Building officials
Jack Glenn, CBO	Home builders
Dave Olmstead	Product manufacturers (windows)
John Ingargiola	Federal government (FEMA)

## **REPORT OF THE DECEMBER 2005 MEETING**

The Committee over several months developed a consensus package of recommendations for proposed code amendments. The amendments were recommended for expedited adoption, glitch cycle adoption, or future adoption based on the need for additional research and development.

At the August 2005 meeting, the Commission voted on the Committee's package of recommended expedited code amendments. At the October HRAC meeting, the Committee reviewed the status of their package of recommendations, including Commission actions related to approved expedited code amendments, amendments deferred to the glitch cycle, and proposed amendments that were not approved or deferred. The Committee also heard an overview from the Panhandle Windborne Debris Region Workshop, and an update on the plan for considering the Exposure C definition issue. In addition, the Committee was asked to review assignments and to identify any additional issues and research and development needs.

At the December 6, 2005 meeting the Committee heard an update on discussions regarding the Exposure C definition, and a status report on the Panhandle Windborne Debris Study. In addition, there were presentations from DCA staff, Miami-Dad County Code Compliance, and the Palm Beach County Building Department on observations regarding the impacts and damage to South Florida from Hurricane Wilma.

The Committee will meet again at the FEBRUARY Commission meeting to receive an update on related projects and status report on Committee issues, and to review member assignments.

### **October Meeting Objectives**

- To Review and Approve December 6, 2005 Agenda and October 10, 2005 Report
- To Review Committee Process Plan
- To Review Status of Committee Recommended Code Amendments Deferred by Commission to Glitch Cycle
- To Receive an Update on the Panhandle Windborne Debris Study
- To Receive a Report on Exposure C Definition Discussions
- To Receive Reports on Hurricane Wilma Damages to South Florida
- To Consider Public Comment

## STATUS OF HRAC’S PACKAGE OF RECOMMENDATIONS

### HURRICANE RESEARCH ADVISORY COMMITTEE RECOMMENDATIONS FOR CODE CHANGES TRACKING CHART 10/17/05

<i>Recommendation</i>	<b>Actions</b>	<b>Targeted Code Change</b>	<b>Action Plan and Assignment</b>
A bond break be provided between primary drainage planes and stucco renderings in drained assemblies. In simple terms this will require two layers of building paper or a layer of building paper over a plastic housewrap.	HRAC recommended Expedited Amendment Commission approved Expedited	Expedited Amendments 11/1/05	Completed
The specification, rating and testing of WRB’s be consistent with their installed exposure – i.e. tested and rated as part of a stucco assembly. Appropriate performance specifications need to be developed for WRB’s used with stucco renderings and the Florida Building Code altered to require them.	HRAC recommended Expedited Amendment Commission approved Expedited	Expedited Amendments 11/1/05	Completed
The Florida Building Code be altered to come into compliance with the International Residential Code to explicitly allow for the construction of unvented roof assemblies.	HRAC recommended Expedited Amendment Commission approved Expedited	Expedited Amendments 11/1/05	Completed
Require application of exterior surface coatings to <del>appropriate standard or</del> manufacturer’s specification..	HRAC recommended Expedited Amendment Commission approved Expedited	Expedited Amendments 11/1/05	Completed
Require wood, metal or other structural support “ridge board” for tile attachment methods 1, 2 and 4A	HRAC recommended Expedited Amendment Commission approved Expedited	Expedited Amendments 11/1/05	Completed

<i>Recommendation</i>	<b>Actions</b>	<b>Targeted Code Change</b>	<b>Action Plan and Assignment</b>
Require FBC approved pre-bagged mortar to attach hip and ridge tiles attachment methods 3 and 4B (pre-bagged mortar requirement applies to systems where mortar is the attachment component not systems utilizing ridge board and mechanical or adhesive-set)	HRAC recommended Expedited Amendment Commission approved Expedited	Expedited Amendments 11/1/05	Completed
Require testing of ridge attachment systems according to SSTD 11 to establish wind up-lift resistance.	HRAC recommended Expedited Amendment Commission approved Expedited	Expedited Amendments 11/1/05	Completed
Utilize an additional tile factor of 2-1 above that specified in SSTD 11 or TAS 101 to determine the “allowable overturning moment” or “attachment resistance expressed as a moment (Mf)”	HRAC recommended Expedited Amendment Commission approved Expedited	Expedited Amendments 11/1/05	Completed
Prohibit component substitution without proper laboratory testing and FBC Product Approval	HRAC recommended Expedited Amendment Commission approved Expedited	Expedited Amendments 11/1/05	Completed
Allow hip and ridge attachment systems with demonstrated performance equal or superior to that required by the identified systems	HRAC recommended Expedited Amendment Commission approved Expedited	Expedited Amendments 11/1/05	Completed
Address requirements for installation instructions via Product Approval Workgroup Recommendations	HRAC recommended Expedited Amendment Commission approved Expedited	Expedited Amendments 11/1/05	Completed

<i>Recommendation</i>	<b>Actions</b>	<b>Targeted Code Change</b>	<b>Action Plan and Assignment</b>
The moisture storage capacity of mass walls be increased by providing a “seat” at the base of these assemblies.	HRAC recommended expedited amendment Commission rejected	None	Referred back to FHBA (recommendation was from FHBA water intrusion report)
Define the terms “weather resistant” and “weather protection”	HRAC recommended expedited amendment Commission rejected	None	Referred back to Central Florida BOAF Chapter to pursue its recommendation
Delete the criteria of chapter 14 that deems walls constructed according to the masonry chapter and concrete chapter requirements to be weather resistant.	HRAC recommended expedited amendment Commission rejected	None	Referred back to Central Florida BOAF Chapter to pursue its recommendation
Require compliance with ANSI/SPRI ES-1 for edge flashings and copings.	HRAC recommended expedited amendment Commission deferred to glitch amendments	Glitch Amendments 10/1/06	Amendment prepared. Resubmit for glitch amendment. (2004 FBC requires the standard for flashings) Roofing Work Group
Require compliance with ASTM E-1592 for testing the uplift resistance of metal panel roof systems. (Note: Require ASTM E-1592 for structural metal panel roof systems and UL 580 for non-structural metal panel roof systems)	HRAC recommended expedited amendment Commission deferred to glitch amendments	Glitch Amendments 10/1/06	Amendment prepared. Resubmit for glitch amendment.  Roofing Work Group
Require asphalt shingles to comply with UL 2390.	HRAC recommended expedited amendment Commission deferred to glitch amendments	Glitch Amendments 10/1/06	Prepare revised amendment and resubmit for glitch amendment.  Roofing Work Group

<i>Recommendation</i>	<b>Actions</b>	<b>Targeted Code Change</b>	<b>Action Plan and Assignment</b>
Require removal of existing roof covering down to the deck and replacement of deteriorated sheathing in areas where basic wind speed is 110 mph or greater. If existing sheathing attachment does not comply with loads derived from Chapter 16, require installation of additional fasteners to meet the loads.	HRAC recommended expedited amendment Commission deferred to glitch amendments	Glitch Amendments 10/1/06	Amendment prepared. Review and revise.  Roofing Work Group
Make the requirements of 2001 FBC Section 1522 (Rooftop Mounted Equipment) applicable throughout the state for all wind speeds. Include in Mechanical Volume also.	HRAC recommended expedited amendment Commission deferred to glitch amendments	Glitch Amendments 10/1/06	Amendment prepared. Review, revise and resubmit for glitch  Mechanical TAC
Add criteria regarding wind and wind driven rain resistance of ridge vents. Attachment criteria require development but TAS 100A could be referenced for rain resistance.	HRAC recommended adoption in post expedited amendment	Glitch Amendments 10/1/06	Prepare amendment and submit.  Roofing Work Group
Criteria for wind resistance of soffits should be developed and added.	HRAC recommended adoption in post expedited amendment	Glitch Amendments 10/1/06	Prepare amendment and submit.  Do Kim and Jaime Gascon
Criteria for wind-driven rain resistance of soffits should be developed and added. TAS 110 may be a suitable test method, modified as necessary.	HRAC recommended adoption in post expedited amendment	Glitch Amendments 10/1/06	Prepare amendment and submit.  Do Kim and Jaime Gascon
Water managed window and door installation requirements be developed and the Florida Building Code altered to require them.	HRAC recommended adoption in post expedited amendment	Glitch Amendments 10/1/06 and 2007 FBC Update follow-up 1/1/07	Prepare amendment and submit.  Windows Work Group

<i>Recommendation</i>	<b>Actions</b>	<b>Targeted Code Change</b>	<b>Action Plan and Assignment</b>
Windows and doors be correctly rated and tested according to ANSI/AAMA 101. Muller window units, double windows or composite windows be tested and held to the same requirements as single units, and according to the appropriate standard (i.e., AAMA 450-06).	HRAC recommended adoption in post expedited amendment	2007 FBC Update 1/1/07	Windows Work Group
Water managed window and door installation requirements be developed and the Florida Building Code altered to require them.	HRAC recommended adoption in post expedited amendment	Glitch Amendment initial and 2007 FBC Update followup 1/1/07	Prepare amendment and submit.  Windows Work Group
Water managed details for dryer vents, electrical panel boxes, electrical boxes, vent fan hoods be developed and the Florida Building Code Altered to require them.	HRAC recommended adoption in post expedited amendment	2007 FBC Update 1/1/07	Prepare amendment and submit. Mechanical and Electrical TAC
Remove the partially enclosed design option at the next code cycle.	HRAC recommended adoption in post expedited amendment	2007 FBC Update 1/1/07	Automatically enacted by adoption of 2006 IRC as required by SB 442.
Adopt ASCE 24-05 for elevation requirements and flood resistant materials, equipment.	HRAC recommended adoption in post expedited amendment	2007 FBC Update 1/1/07	FEMA and Florida DCA coordination. Enacted by adoption of 2006 IBC and IRC.
Re-evaluate the hazard identification/mapping approaches in Coastal A/V Zones.	HRAC recommended adoption in post expedited amendment	2007 FBC Update 1/1/07	FEMA and Florida DCA coordination. Prepare and submit amendment.
For hurricane shelters and EHPA, adopt wind speed recommended by Florida DCA in the State Emergency Shelter Program and the ASCE 7-02/2001 FBC wind speed map design wind speed plus 40 mph using Performance Criteria 3.	HRAC recommended adoption in post expedited amendment	2007 FBC Update 1/1/07	Florida DCA, DOE and School Board Association negotiation.

<i>Recommendation</i>	<b>Actions</b>	<b>Targeted Code Change</b>	<b>Action Plan and Assignment</b>
Pressure relieved/baffled soffit assemblies be developed for vented roof assemblies and the Florida Building Code altered to require them.	HRAC recommended adoption in post expedited amendment	Long range – post 2007 FBC update.	Conduct R&D to evaluate soffit water intrusion control methods. FY 06-07 project
It is unlikely that a practical paint specification can be developed in the short term to address micro-cracking stucco issues as the relationships among water vapor permeability, mil thickness and elasticity are not known. It is recommended that these relationships be explored and that until these relationships are understood the Florida Building Code not be altered to require “elastomeric paints” on stucco renderings.	HRAC recommended adoption in post expedited amendment	Long range – post 2007 FBC update.	Conduct R&D on water penetration, absorption and transport through concrete and masonry wall assemblies to establish criteria for coatings or other water control measures. FY 06-07 project.
Add technically-based criteria regarding blow-off resistance of aggregate on built-up and sprayed polyurethane foam roofs (Roof Coverings for Roofs with Slopes Less than 2:12).	HRAC recommended adoption in post expedited amendment	Long range supported by R&D	Conduct R&D to establish criteria. FY 06-07 project.
Develop window water leakage test and performance criteria specific to hurricane prone regions.	HRAC recommended adoption in post expedited amendment	Long range supported by R&D	Conduct R&D in support of AAMA standard development. FY 06-07. Window Workgroup
Develop criteria that pertain to attaching lightning protection systems. Include in the Electrical Volume also.	HRAC recommended adoption in post expedited amendment	Long range supported by R&D	Support industry standard development activity. Tom Smith/FEMA
Revise the Florida panhandle criteria to match ASCE 7 wind borne debris region.	HRAC recommended adoption in post “expedited” amendment	Legislature must change the law	Conduct Study to evaluate damage risk and cost/benefit for panhandle characteristic terrain for basis of recommendation to Legislature

**Note:** *Red text indicates recommendations for expedited amendments to FBC*

*Black text indicates deferral to glitch amendment proceeding decided 6/28/05*

*Blue text indicates deferral to glitch amendment proceeding decided 5/10/05*

Purple text indicates Commission deferral of HRAC recommended expedited amendments, to the glitch amendment proceeding.

**APPENDIX E**

**PRODUCT APPROVAL WORK GROUP**

**REPORT TO THE FLORIDA BUILDING COMMISSION**

**PACKAGE OF RECOMMENDATIONS FOR REVISIONS TO THE  
PRODUCT APPROVAL SYSTEM**

**MARCH 29, 2005**

**Orlando, Florida**

**Meeting Design & Facilitation By**



**Report By Jeff A. Blair  
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# FLORIDA BUILDING COMMISSION

## REPORT PRODUCT APPROVAL WORK GROUP'S UNANIMOUS RECOMMENDATIONS TO THE FLORIDA BUILDING COMMISSION

### RECOMMENDATIONS FOR STATUTORY CHANGES/AUTHORIZATION RELATED TO THE PRODUCT APPROVAL SYSTEM

The following package of recommendations was unanimously adopted by the Workgroup.

#### 1. SCOPE OF THE RULE

##### PRODUCTS THAT ARE SUBJECT TO PRODUCT APPROVAL

*Limited to products and systems which comprise the building envelope and structural frame, for compliance with the structural wind load requirements of the Florida Building Code as related to Rule 9B-72.*

(Add scoping language to clarify that the Rule applies to wind related structural properties of the eight (8) product categories listed in law; and, amend subcategories of the covered products to eliminate products outside the defined scope.)

#### 2. LOCAL PRODUCT APPROVAL

*Clarify in the Rule that local approval may be accomplished by one of five ways, the four compliance methods (certification mark or listing, test report, evaluation report by evaluation entity and evaluation report by A or E) currently in the Rule, or by state approval using Commission approved entities, or may be validated by the local AHJ.*

*Products demonstrating compliance shall be manufactured under a Q.A. program audited by an approved Q.A. entity.*

*Determine and require the necessary criteria for the evaluation of the above documents be provided for review of the approval.*

*Products bearing a certification mark or listing or label by an approved certification agency require no further documentation to establish compliance.*

*Local building officials may accept modifications to products or their installations provided sufficient evidence is submitted to the local building official to demonstrate compliance with the Code or the intent of the Code, including such evidence as certifications from a Florida Registered Architect or Florida Professional Engineer.*

*Eliminate the mandatory checklist required for local product approval.*

*Eliminate the application form, and use the criteria currently in the form as list of minimum submittal criteria required for product approval application.*

### **3. EVALUATION—INSTALLATION INSTRUCTIONS**

*Require installation instructions for all compliance options, including attachments requirements.*

*Manufacturer installation instructions shall be generated by an evaluation entity, test lab or by a manufacturer's licensed design professional.*

*Prior to the manufacturer posting installation instructions (including anchorage requirements) on the BCIS, they shall be reviewed or verified by the one of the following: certification agency, evaluation entity, test lab or by a manufacturer's licensed design professional. Alteration of installations may be allowed by a Florida architect or engineer.*

### **4. EVALUATION—PRODUCT/MATERIALS EXEMPTIONS**

*Seek statutory authority for the Commission to adopt by rule, an exemption from the (Method 1 and Method 2) evaluation requirements for products/materials that are subject to specification standards in the Florida Building Code.*

### **5. VALIDATION ENTITY**

*Seek statutory authority to eliminate the third party validation entity in the validation process, and require the Product Approval System Administrator to conduct this function. The Commission will develop a set of criteria for reviewing each of the four compliance options.*

## I. WHICH PRODUCTS ARE COVERED IN THE RULE

A. Define which products should be subject to product approval.

1. *Limited to products and systems which comprise the building envelope and structural frame, for compliance with the structural wind load requirements of the Florida Building Code as related to Rule 9B-72.*

(Add scoping language to clarify that the Rule applies to wind related structural properties of the eight (8) product categories listed in law; and, amend subcategories of the covered products to eliminate products outside the defined scope.) Note:

2. *Make exterior door components (not part of a door assembly) a subcategory under exterior doors. (DCA04-DEC-157)*

B. Definition of Structural Components

1. *Structural component means any part or assembly of a building or structure that comprise the main wind force resisting system and components and cladding.*

Add language to the scope section of the Rule (9B-72.005) indicating that there are some exemptions to this provision of the Rule.

C. Clarify how pre-engineered buildings should be treated by Rule 9B-72 for standard (replicated) and custom (one-of-a-kind) buildings.

### **Summary of PAWG Action:**

The Workgroup unanimously agreed that **custom** (one-of-a-kind) pre-engineered buildings are exempt from the Rule since they already require engineering for the approval process.

The Workgroup unanimously agreed that the “Sheds” subcategory should be removed from the Rule.

D. Pre-engineered AC Stands

1. *Add pre-engineered AC stands as a subcategory under the structural components category (consistent with the FBC’s declaratory statement decision).*

E. Pre-engineered roof access hatches

1. *Add pre-engineered roof access hatches as a subcategory under the exterior doors category (consistent with the FBC's declaratory statement decision). (DCA04-DEC-161)*
- F. Wind Breaker sub-category of windows.
  1. Remove the wind breaker sub-category from the windows category of the Rule.

**Summary of PAWG Action:**

The Workgroup agreed to recommend removing this sub-category from the Rule.

- G. Railing sub-category of structural components.
  1. Remove the railing subcategory from the structural components category of the Rule.

**Summary:**

The Workgroup unanimously agreed to recommend removing this sub-category from the Rule.

## **II. EVALUATION**

A. Requiring Installation Instructions For All Compliance Options.

1. Require installation instructions for all compliance options, including attachments requirements.

B. (i) How are installation instructions reviewed and approved through the product approval process and put on the BCIS?

*Manufacturer installation instructions shall be generated by an evaluation entity, test lab or by a manufacturer's licensed design professional.*

*Prior to the manufacturer posting installation instructions (including anchorage requirements) on the BCIS, they shall be reviewed or verified by the one of the following: certification agency, evaluation entity, test lab or by a manufacturer's licensed design professional. Alteration of installations may be allowed by a Florida architect or engineer.*

(ii) How does this (installation instructions) affect signed and sealed for permitting purposes?

**Summary:**

The Workgroup agreed that DCA legal will need to research whether a Florida registered architect or engineer is required for a manufacturer to provide typical installation details in the product's approval, or whether they can be provided by their own design professionals, who may not be Florida registered.

The second issue is to provide clarification that a Florida registered architect or engineer is allowed to make modifications to the installation instructions, and approval is allowed for alternate installation methods other than those provided in the product's approval documentation.

- C. What specific criteria should be required for identifying product limitations of use.
  - 1. Identify and require specific criteria for limitations of use by wind zones/HVHZ.

**Summary:**

A product shall be required to list as one of its limitations whether it is intended for use in the HVHZ.

- D. Testing Products to Correct Standards in the Florida Building Code.
  - 1. *Upon submittal of the application, the manufacturer shall provide certification of equivalency by the evaluator, standards writing organization, testing lab accredited to tests both standards or for a Florida architect or engineer for review by the Commission. (Staff will maintain a list of Commission approved equivalent standards.)*

Develop a method for recognizing equivalency of standards (9B-72.180).

- E. Clarify in Rule the procedure for job specific approvals of products covered by the Rule (when the product is not to be used consistent with its approval).
  - 1. *Local building officials may accept modifications to products or their installations provided sufficient evidence is submitted to the local building official to demonstrate compliance with the Code or the intent of the Code, including such evidence as certifications from a Florida Registered Architect or Florida Professional Engineer.*
- F. Clarify whether evaluation reports/certifications based on standardized tests adopted by the Code have to be tested by an approved test lab.

1. When the code requires a standardized test as a component of a product approval using the evaluation report or certification compliance method, the test lab must be accredited by an approved accreditation body. The entity issuing the evaluation report or certification is responsible to ensure that the test lab is accredited.

- G. Clarify that rational engineering analysis can not be used in lieu of a standardized test required by the Code for approval of products within the scope of the standard.  
(Note: except for local project specific product approval in accordance with alternate methods and materials authorized in 103.7 of the FBC.)

**Summary of PAWG Action:**

Provide clarification in the Rule.

- H. Clarify that a legacy evaluation report from an nationally recognized model code organization may be used if it shows compliance with the Florida Building Code.
- I. Exemptions for evaluation requirements for products subject to prescriptive specification standards found within the Code.

*1. Seek statutory authority for the Commission to adopt by rule, an exemption from the evaluation requirements for products/materials that are subject to specification standards in the Florida Building Code.*

- J. Evaluation by Architects and Engineers.

*1. (4) Evaluation Report and Test Report Documentation Requirements. All reports and documentation required in subsections 9B-72.070(1) and (2), F.A.C., shall contain the information listed below. Design drawings submitted for permitting purposes are not to be construed to be an evaluation report and do not require this information.*

- (a) *Name and address of the manufacturer, evaluation entity, engineer or architect or testing laboratory.*
- (b) *Statement of compliance with the appropriate section or standard of the Code.*
- (c) *Complete description of the product, construction method or building system including, all drawings, manufacturers product designation, and materials, except materials specifics identified as proprietary.*
- (d) *Technical documentation, including all substantiating data, supporting the compliance statement. Substantiating data shall include all test reports and calculations which may be referenced within the report.*
- (e) *Installation requirements.*
- (f) *Limitations and conditions of use.*
- (g) *Certification of independence in conformance with Rule 9B-72.110, F.A.C.*
- (h) *Name, title and signature of person authorized to sign on behalf of entity or signature, registration number and seal in the case of architects and engineers.*

- K. Resolve Discrepancies Between the Rule and Code for Product Labeling.

**Summary of PAWG Action:**

This issue is the subject of a complaint action and will have to be resolved at the POC level.

### **III. QUALITY ASSURANCE**

- A. Exemptions for third party quality assurance for certain products for both local and state approval.

- 1. *Products that have prescriptive specification standards and Q.A. procedures as specified in the Code will be deemed approved. The Commission will seek statutory authority to exempt these products, and the product list will be developed on a case-by-case basis. (No list will be created at this time).*

- B. Third party Quality Assurance is not Required for Site Specific Shop Fabricated Curtain-Wall Systems, provided that system components have Q.A. as provided by the Rule.

- C. Quality Assurance Entities.

- 1. *Clarify in the Rule that Commission approved Certification Agencies are also approved as Quality Assurance Entities for the products covered by their certification program.*

- D. Clarify in Rule that Q.A. agencies that are ISO rated do require additional approval by the Commission.

## **IV. VALIDATION**

### **A. Clarify in the Rule what Level of Review is Required for Validation.**

1. Seek statutory authority to eliminate the third party validation entity in the validation process, and require the Product Approval System Administrator to conduct this function. The Commission will develop a set of criteria for reviewing each of the four compliance options.

## **V. QUALIFICATION OF ENTITIES (no proposed revisions)**

## **VI. FEES**

The Commission voted to charge a \$300.00 fee for revisions to already approved products.

## **VII. LOCAL PRODUCT APPROVAL**

### **A. How local product approval is accomplished.**

1. *Clarify in the Rule that local approval may be accomplished by one of five ways, the four compliance methods (certification mark or listing, test report, evaluation report by evaluation entity and evaluation report by A or E) currently in the Rule, or by state approval using Commission approved entities, or may be validated by the local AHJ.*

*Products demonstrating compliance shall be manufactured under a Q.A. program audited by an approved Q.A. entity.*

*Determine and require the necessary criteria for the evaluation of the above documents be provided for review of the approval.*

*Products bearing a certification mark or listing or label by an approved certification agency require no further documentation to establish compliance.*

*Local building officials may accept modifications to products or their installations provided sufficient evidence is submitted to the local building official to demonstrate compliance with the Code or the intent of the Code, including such evidence as certifications from a Florida Registered Architect or Florida Professional Engineer.*

*Eliminate the mandatory checklist required for local product approval.*

*Eliminate the application form, and use the criteria currently in the form as list of minimum submittal criteria required for product approval application.*

## **VIII. BCIS (BUILDING CODE INFORMATION SYSTEM)**

### **A. Enhancements to the BCIS Related to Revising Data on the System.**

1. *Authorize revisions to all data on an approved product. Adding a new product to an approved application should not be allowed in the revision process. Product revisions will apply to the same sub-category, and a revision history (tracking method) will be maintained.*
  
2. *Revision: A revision is a material change to the performance of the product. The BCIS should have fields that can be changed without a fee. Provide a revision number for all changes. Minor changes such as section number changes with no substantive changes may be made without a fee; however, the manufacture will be required to certify that the revision does not have a material or substantive change.*
  
3. *A form should be developed to allow the manufacturer to certify compliance with the 2004 Code. The certification will be posted to the BCIS and there will be a random auditing process to verify claimed compliance with sanctions including revocation. There is no fee if there is no change. All changes will require a revision number. Update code sections is not a revision. There will be a revision history. Minor changes such as section number changes with no substantive changes may be made without a fee; however, the manufacture will be required to certify that the revision does not have a material or substantive change.*
  
- B. *Use the 8<sup>th</sup> product category language and insert it into each of the other sub-categories. Eliminate the " other" sub-category and provide language within each sub-category that recognizes new technology.*
  
- C. *Add additional fields in the BCIS to standardize the formatting of the limits of use field.*
  
- D. *Add help button to the system.*
  
- E. **How Should the Rule Link Approved Certification entity labels with the State Approval.**
  1. *Require the FL # to be cross-linked to the product in the BCIS.*

## **IX. MISCELLANEOUS TOPICS**

A. Terminology for State Approval.

1. *Replace ~~statewide~~ with state in the Rule.*

B. Should there be a conditional or deferred application status on the BCIS?

Summary of PAWG Action:

This issue was referred to the Product Approval Program Oversight Committee (POC).

C. Define technical documentation.

Summary of PAWG Action:

This issue was referred to the Product Approval Program Oversight Committee (POC).

D. Define limitations of use.

For each of the product subcategories the minimum limitations of use must include whether the product is or is not for use in the HVHZ, wind speed, design pressure, and impact vs. non-impact.

E. *Require that an e-mail notification be sent to the selected Test Lab, whenever an applicant uses a test report as a part of their product approval submittal.*

F. *Require that all test reports have a valid company name and address on them.*

G. Local Approval of Products Denied by the Florida Building Commission.

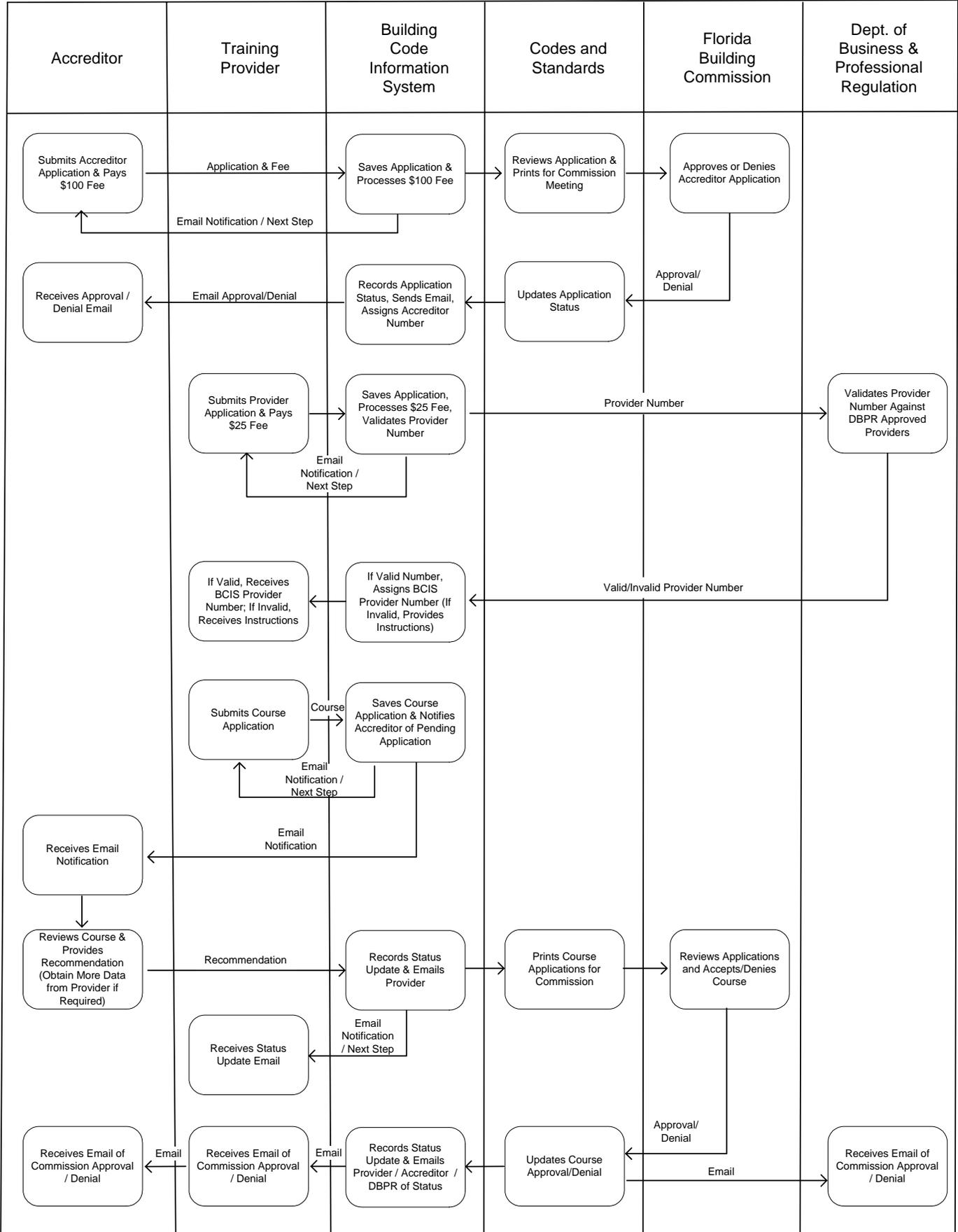
1. *Do not allow local jurisdictions to approve products that have been denied for technical insufficiency by the Florida Building Commission without providing additional clarifying technical data showing compliance with the code.*

2. *The explanation for denial shall be posted on the BCIS.*

H. *Add a new sub-category for structural to cover concrete and masonry anchors.*

# APPENDIX F

## Voluntary Course Accreditation Program Process Flow



**APPENDIX G**

**BUILDING CODE SYSTEM ASSESSMENT AD HOC**

**RECOMMENDATIONS**

**TO THE FLORIDA BUILDING COMMISSION**

**December 6, 2005**

**Tampa, Florida**

**Meeting Design & Facilitation By**



**Report By Jeff A. Blair**  
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**FLORIDA BUILDING COMMISSION**  
**BUILDING CODE SYSTEM ASSESSMENT AD HOC REPORT**  
**DECEMBER 6, 2005**

**Overview**

Triennial Report to the Legislature. Florida Statute, Chapter 553.77(1)(b), requires the Commission to make a continual study of the Florida Building Code and related laws and on a triennial basis report findings and recommendations to the Legislature for provisions of law that should be changed. This year (2005), the Commission solicited stakeholder input in the form of an on-line survey (conducted from August through September 16, 2005), and at the December Commission meeting the Commission will consider and develop a package of recommendations for enhancements to the Florida Building Code System. The Commission's recommendations related to this topic, will be a major component of their Report to the 2006 Legislature. In order to accomplish this in a participatory manner, Chairman Rodriguez announced on August 24, 2005, that he was appointing an Ad Hoc Committee comprised of Commissioners to meet in a facilitated process, and to develop recommendations to the Commission between October and December of 2005. The appointments to the Building Code System Assessment Ad Hoc are: Dick Browdy, Ed Carson, Nick D'Andrea, Herminio Gonzalez, Jim Goodloe, Jeff Gross, Do Kim, Randall Vann, and George Wiggins.

**Members and Representation**

Dick Browdy	Homebuilders
Ed Carson	Contractors and Manufactured Buildings
Nick D'Andrea	Building Officials
Herminio Gonzalez	Product Evaluation Entities
Jim Goodloe	State Insurance and Fire Officials
Jeff Gross	Architects and Building Management Industry
Do Kim	Engineers and Insurance Industry
Randall Vann	Plumbing Contractors and Construction Subcontractors
George Wiggins	Local Government

**Meeting Schedule**

Meeting I	October 11, 2005	Orlando, FL
Meeting II	November 16, 2005	Orlando, FL
Meeting III	December 6, 2005	Tampa, FL

## **REPORT OF THE DECEMBER 6, 2005 MEETING**

### **Opening and Meeting Attendance**

Jeff Blair, Commission Facilitator, opened the meeting at approximately 8:00 AM, and the following Ad Hoc Committee members were present:

Dick Browdy, Ed Carson, Nick D'Andrea, Herminio Gonzalez, Jim Goodloe, Jeff Gross, Randall Vann, and George Wiggins.

### **DCA Staff Present**

Betty Stevens captured participant's comments and took notes for the meeting.

### **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 at the project webpage: <http://consensus.fsu.edu/FBC/bcsa.html>

### **Agenda Review**

Jeff Blair reviewed the agenda with members and the public. The agenda included the following objectives:

- To Review and Adopt the December 6, 2005 Agenda, and November 16, 2005 Report
- To Review Consensus Recommendations Requiring Statutory Changes
- To Identify Any Additional Options for Evaluation—Requiring Statutory Changes
- To Evaluate Any Additional Proposed Options—Requiring Statutory Changes
- To Ensure Recommendation Language Implements/Captures Ad Hoc's Intent
- To Review Consensus Recommendations Not Requiring Statutory Changes
- To Consider Public Comment
- To Adopt Package of Recommendations for Submittal to the Commission
- To Identify Next Steps, and Agenda Items for Next Meeting, if Needed

### **Review of Options Worksheet and Identification of Additional Options**

Jeff Blair reviewed the Ad Hoc's preliminary package of recommendations for statutory changes and the additional recommendations not requiring legislative action to implement. Members were asked to review each of the recommendations, and following comments to vote again on each of the recommendations. Member's were also offered an opportunity to propose additional recommendations.

Following are the consensus recommendations, separated into those that require statutory changes and those that do not.

## **BCSA Ad Hoc Committee’s Consensus Recommendations—Requiring Statutory Change**

The Committee voted unanimously, 8 – 0 in favor, to recommend the following package of recommendations to the Florida Building Commission:

### **A. FLORIDA BUILDING CODE AND CODE DEVELOPMENT PROCESS**

*Seek Statutory authority for an "expedited amendment" process in Chapter 553 for glitch and correlation (including errata) amendments. The process would allow the Commission to implement expedited amendments using only the standard Chapter 120 rule development procedures.*

*Recommend that the Florida Building Commission seek legislative authority requiring that the sizing of private sewage systems be governed by definitions provided in the Florida Building Code.*

### **B. THE FLORIDA BUILDING COMMISSION**

*Recommend that the Legislature create a specific Senate and/or House committee specific to the Florida Building Code. The Commission’s “Legislative Liaison Committee” could interface with this entity.*

### **C. LOCAL ADMINISTRATION OF THE FLORIDA BUILDING CODE**

*No statutory options on this System component achieved a consensus recommendation.*

### **D. CODE COMPLIANCE AND ENFORCEMENT—EDUCATION AND TRAINING**

*No statutory options on this System component achieved a consensus recommendation.*

**E. PRODUCT APPROVAL SYSTEM**

*Supports the POC's effort related to the development and implementation of an accelerated revocation process for noncompliant product approvals, and supports recommending any required legislative changes necessary to implement the POC's final recommendation.*

**F. BUILDING CODE INFORMATION SYSTEM**

*No statutory options on this System component achieved a consensus recommendation.*

**G. MANUFACTURED BUILDINGS PROGRAM**

*No statutory options on this System component achieved a consensus recommendation.*

**H. PROTOTYPE BUILDINGS PROGRAM**

*No statutory options on this System component achieved a consensus recommendation.*

**I. PRIVATE PROVIDER SYSTEM**

*No statutory options on this System component achieved a consensus recommendation.*

## **BCSA Ad Hoc Committee’s Consensus Recommendations—Not Requiring Statutory Change**

### **A. FLORIDA BUILDING CODE AND CODE DEVELOPMENT PROCESS**

*Initiate a collaborative process between the Florida Building Commission and the Division of State Fire Marshal to develop a coordinated code development/adoption schedule between the FBC and the FFPC (codes), that once implemented would provide sufficient time and strict deadlines to keep the Codes on the same adoption schedule. DCA staff will take the lead on implementing this recommendation.*

*Commission review the existing coordination effort to coordinate the FBC and the FFPC (codes), and implement a long-term process to correlate the technical and jurisdictional provisions of the two codes.*

### **B. THE FLORIDA BUILDING COMMISSION**

*Recommends that the Chair consider initiating a “Legislative Liaison Process”, which may include Commissioners, designed to ensure that the legislative agenda of the Commission is directly represented. The review should consider the best format for creating/serving as a liaison between the FBC and Florida Legislature. The Committee recommends that any rule changes required to implement this recommendations be initiated.*

*A special Commissioner weblink should be implemented and maintained to provide Commissioners with all Commission relevant updated and draft documents, as well as communications related to travel and other logistical issues. This Commissioner web access venue should be reviewed by DCA to ensure no laws are violated through the implementation of this recommendation.*

*An effort should be initiated to review and establish strict deadlines for adding agenda items to the web posted agenda for TAC meetings (this should be more than 7 days).*

*An effort should be initiated to review and evaluate Commission meeting locations to ensure that the Commission meet in all regions of the State based on reasonable schedule. (This would include on average: Orlando, Miami, Tampa, North East Florida, and the Panhandle).*

### **C. LOCAL ADMINISTRATION OF THE FLORIDA BUILDING CODE**

*The Commission should prioritize the issue and conducted an assessment to survey local building officials on their needs regarding administration of the Code (i.e., training and education needs, staffing, funding, etc.). This survey should also focus on how local building jurisdictions are addressing “master building plans” in relation to the Prototype Building Program.*

*The Commission recommends and encourages the various trade associations to develop training and education on the Code for job site supervisors and specialty subcontractors and tradesman who participate in the construction of the structure.*

The Commission recommends and encourages BOAF to provide training and educational seminars related to binding interpretations.

*Recommend that the FBC’s Code Administration TAC be convened to take a proactive approach to reviewing and developing recommendations related to Code administration. The focus of the effort should be toward ensuring uniform enforcement of the Code.*

### **D. CODE COMPLIANCE AND ENFORCEMENT—EDUCATION AND TRAINING**

*Commission encourages and recommends the various trade associations to develop training and education opportunities for job site supervisors and subcontractors who participate in the construction of the structure.*

*Commission encourages and recommends enhanced opportunities related to coordination and cross-training between building and fire officials on the respective codes.*

## **E. PRODUCT APPROVAL SYSTEM**

*The Ad Hoc voted unanimously that all recommendations related to Product Approval, are directed toward the POC and related Workgroups, and are offered in support of existing efforts.*

*The Committee recommends that the POC develop a streamlined Commission Product Approval review process with consent agendas.*

*The Committee supports the POC's and PAVWG's determination that validation includes a technical review.*

*The Committee recommends that the POC review the frequency of Quality assurance program inspections.*

*Recommends that the POC in collaboration with the system administrator, develop checklists indicating what information is required for application submittal and validation.*

*Recommends that the POC develop a process with specific criteria, for disciplining A & E validators and evaluators and notify the appropriate boards, regarding those that continue to have problems with their submittals (i.e., a three strike system). A similar process for certification agencies should be developed related to notifying accreditors.*

*Recommendation supporting POC/PAVWG's efforts related to identifying and standardizing which compliance options may be selected for the different product categories.*

*Recommendation supporting POC/PAVWG's efforts related to the development of clear and consistent criteria for each compliance method, with a fill-in-the-blank as-you-go application to facilitate.*

*Recommendation of support for POC's efforts related to labeling products with the product approval number.*

*Recommendation of support regarding POC working to require uniformity of information posted to the website for all compliance methods used for product approval.*

*Committee supports the Education POC's efforts in educating the public on the product approval system and website.*

## **F. BUILDING CODE INFORMATION SYSTEM**

*Recommend that the Education POC implement a campaign to make the public and all system participants aware of the BCIS and the information contained within the site.*

*Recommend to DCA that they simplify the web pages by removing the DCA information wrapped around each of the pages.*

## **G. MANUFACTURED BUILDINGS PROGRAM**

*Recommend that the PA POC prioritize efforts to review and develop enhancements related to the system designed to ensure that alterations and attachments to approved buildings are required to comply with the Code.*

*Support PA POC's existing efforts to design the system to identify and resolve problems related to the program and the product.*

*Support efforts by the Education POC to implement an education and training program/campaign to clarify and publicize the roles and responsibilities of the various system participants (i.e., permitting, inspection, installation, etc.).*

*Recommend that the Product Approval POC work with the Budget Committee to develop a list of approved uses for the fees collected from the program (i.e., training on the program).*

## **H. PROTOTYPE BUILDINGS PROGRAM**

*Recommend that an effort be initiated to review and market the Program. The review should focus on surveying how local building jurisdictions deal with master building plan files, for repetitive building, in relation to the Prototype Building Program. The review should assess whether the local system could and/or should be integrated into the State program, as well as whether there is a need for the State program, and/or both systems.*

## **I. PRIVATE PROVIDER SYSTEM**

*No options achieved consensus, and there are no recommendations.*

**APPENDIX H**

**FLORIDA BUILDING COMMISSION**

**CONSTRUCTION PRACTICES/QUALITY  
ASSESSMENT REPORT**

**ISSUES, OPTIONS, AND RECOMMENDATIONS REGARDING  
CONSTRUCTION AND INSPECTION PRACTICES  
AND**

**RECOMMENDATIONS TO THE  
2006 FLORIDA LEGISLATURE**

**DECEMBER 10, 2005**



**Report By Jeff A. Blair  
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This document is available in alternate formats upon request to Dept. of Community Affairs,  
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## **I. INTRODUCTION AND OVERVIEW**

On June 3, 2004, Senator Lee Constantine sent a letter to Florida Building Commission Chairman Raul L. Rodriguez, AIA, outlining the outcome of building code related legislation resulting from the 2004 legislative session. One of the issues, and the subject of this assessment report, concerns the Senator's request that the Commission "study the current practices of builders and inspectors and make recommendations that will maintain the quality of construction and the effectiveness of home inspections while providing protection for builders, inspectors and consumers". The Senator indicated that although specific legislation relating to construction practices was initiated (SB 1328) and enjoyed support at the committee levels, it was not taken up by the 2004 Legislature due to time constraints. Senator Constantine indicated to the Commission, that now is an opportune time to review certain construction practices, and remarks in his letter that the State of Florida has a rapidly expanding population, and the subsequent demand for the sale and construction of homes has created the "possibility of an increase in problems associated with home construction".

At the June 15, 2005 Commission meeting, Chairman Rodriguez outlined the Senator's letter, and indicated that he would respond to the Senator in writing, which was done in a letter dated July 14, 2004. In regards to the quality of construction issue, the Chair charged Jeff Blair, Commission facilitator with the Florida Conflict Resolution Consortium at Florida State University, with conducting an assessment by interviewing stakeholder groups affected by the issue, and reporting back findings and recommendations to the Commission in time for their review at the January 25, 2005 meeting.

Following are the three key issues identified in Senator Constantine's letter, and they are addressed in the assessment report:

Study the current practices of builders and inspectors and make recommendations that will maintain the quality of construction and the effectiveness of home inspections.

Review procedures used by tract builders regarding the post construction checklist, and the length of time for completing the list.

Review current practices that inspectors use when doing home inspections as well as the number of inspectors that are available to conduct inspections.

In addition, other related issues, considerations, and options identified by interviewees, are also addressed. These include issues related to roles and responsibilities as well as procedural matters. It should be noted that the findings in this assessment report are limited to residential home construction. Finally, an analysis of the findings and recommendations for proceeding are included as a component of the report.

It should be noted that the express purpose of the request for a review of construction practices is, "to increase the safety, accountability, and affordability of the construction industry".

This report presents the results of the assessment conducted on behalf of the Florida Building Commission. It is based on interviews with the affected interests and a review of documentation. There are no views attributed to specific individuals and findings represent a compilation of views representing a general level of agreement between interviewees. In some cases, opinions run the gamut from the Commission should be granted additional authorities to deal with an issue to nothing should be done unless the market drives the change through the course of business and economic decisions. Views run from a desire for more regulation to less regulation to leaving the system as it currently is.

A central finding of the assessment is that, there are many interrelated issues and interest groups affected by the quality of construction and construction practices review issue, and no single process or option will adequately address the issue. Rather, a coordinating role will be required where issues of education, training and qualifications, licensing, building codes, inspection functions, public and private roles and responsibilities, construction professionals from design through installation trades, consumer interests, and executive and legislative policy decisions can be considered in a holistic and systematic manner. Finally, the implementation of any recommendations for system enhancements will require a commitment of funding, and stakeholder were unanimous in agreeing that the Florida Building Commission should not be given additional responsibilities and duties without a commensurate increase in funding support.

## **II. THE ASSESSMENT PROCESS**

The purpose of the assessment was to consider the various issues related to the construction practices of builders and inspection practices of inspectors from the perspectives of stakeholder groups with an interest in the system. Interviewees were asked to identify what they consider to be the key issues related to construction and inspection functions, what were some acceptable options from their perspectives, and what role they felt the Commission should play in any process convened to consider these issues.

This assessment was conducted by Jeff Blair of the Florida Conflict Resolution Consortium, a center based at Florida State University. Additional information on the assessment interviewer can be found in Appendix II of this report.

### **A. Conduct of the Assessment**

The assessment interviewer met initially with Chairman Raul L. Rodriguez, AIA and DCA staff to discuss the parameters of the assessment and to identify potential interviewees. Additional interviewees were suggested by those interviewed during the course of the project. Most interviews were conducted by phone. In addition, the assessment interviewer reviewed relevant documents, including Senator Constantine's letter, construction and inspection relevant statutes, and a draft of SB 1328. A list of persons interviewed is provided in Appendix I of this report.

## **B. Interview Questions**

- Are you aware of the purpose behind this quality of construction assessment?
- How does this issue affect and/or impact your interests?
- From your perspective what are the key issues that should be considered in any process convened to conduct a review of current practices in terms of construction and inspections?
- What do you see as the role of the Commission in a review and recommendation process?
- Is this a Building Code Issue?
- Any suggestions for enhancing the system (construction and inspections)?
- What would be the best format to review the issues and make recommendation?
- Who else should I talk to in order to get a complete picture of the situation?

## **III. FINDINGS OF THE ASSESSMENT BY ISSUES**

### **Role of the Florida Building Commission**

In general, interviewees felt that the Florida Building Commission (the Commission), is the best forum for reviewing issues related to quality of construction, with broad based stakeholder representation, and a proven commitment to consensus-building on substantive policy issues. However, certain concerns were identified especially related to providing additional funding to hire staff and/or consultants to review code related issues and make recommendations back to the Commission. A common theme was that, whatever new authorities may be granted to the Commission should include additional commensurate resources to ensure the Commission can continue to meet all of its responsibilities in an effective manner

In addition, there are many issues related to quality of construction that belong in the purview of the various licensing and enforcement boards, as well as some issues which belong in the private sector as a part of their business practices.

Although most agree that, the Commission could serve as a review forum with coordination functions, some interest groups believe many of the issues are not Commission and building code issues per se. Many interest groups felt the Commission could play a coordinating role in consumer education as well as with building code related education, again with commensurate additional funding.

Finally, it was strongly recommended by many interest groups that the Commission receive legislative authority to issue binding interpretations on the Building Code to ensure consistent and uniform enforcement of the Code around the State.

### **The Florida Building Code Process**

In general, interviewees felt that the Building Code amendment process is already in place and effectively responding to emerging information related to enhancing the performance of homes in areas such as flashing, water infiltration, and product performance. In fact, the Commission is currently participating in a review of the research conducted as a result of this season's hurricanes, and determining whether to effect code enhancements resulting from lessons learned. Several interviewees who engage in damage investigation and/or repair work, noted that certain products should be reviewed for suitability since they allegedly do not perform well under specific Florida conditions such as high humidity and moisture. They also indicated some of the

existing weatherproofing practices including caulking should be evaluated for performance and unintended consequences, such as trapping moisture inside of walls. In addition, numerous interviewees pointed out that the Florida Building Code, as are building codes generally, is a minimum standard and intended to address structural integrity and the life-safety of a building, and not the more subjective issue of “quality”. Support was expressed for reviewing the minimum inspections required in the code. In fact, as will be discussed later, most believe that issues of quality are often related to installation and improper use of products, and not the result of the Florida Building Code. There is general agreement that, the Code is a living document designed to provide a reasonably cost effective and structurally sound building. The issues of resources and funding was another central finding, with stakeholders recommending the Commission receive additional funding to hire consultants to assist with the review of key issues under consideration by the Commission. In many instances, multiple complex issues are concurrently under consideration by the Commission, and the DCA staff as well as the Commission’s Technical Advisory Committees (TAC’s) are unable to research and develop recommendations to the extent desirable on all issues due to resource constraints related to staffing, time, and funding. Interviewees report that if the Commission were able to hire more consultants, then the Commission would have the best research and data available for making their decisions and recommendation on the Building Code System.

### **Consumer Related Issues**

According to interviewees, the issues of consumer protections related to construction and inspection practices, should be addressed primarily from the licensing and enforcement perspectives. Many mentioned the Construction Industry Licensing Board and other professional boards as venues for reviewing protections afforded in contracts and warranties, such as requiring minimum contract standards for builders’ contracts. There were also comments regarding a need to coordinate between the Building Code and the various licensing boards in terms of enforcement strategies and education initiatives. Again, the issue of ensuring the use of durable and weather tight products and proper installation techniques was considered a consumer safeguard issue that could be addressed in the Code.

Education and dissemination of sound accurate information to the public, was described as a potential role for the Building Commission as long as funding came with the responsibility. Many interest groups believe that “quality”, beyond the requirements of the Building Code is a market driven issue, based on the performance record of the contractor, and the subsequent satisfaction level of consumers. In short, the market drives the process as related to quality.

### **Post Construction Check Lists—Punch list**

Although this is clearly a consumer issue, it is also a builder issue, and affects both consumer and builder in a substantial way. In general, with one exception, interest groups believed strongly that requiring standards for punch lists is not a proper issue for consideration in a review of construction quality as related to building practices, and is in fact, a marketing and reputation decision of the individual contractor. Many felt that a review of punch lists is an unwarranted intrusion, and not appropriate for regulation.

## **Enforcement**

There appears to be near universal agreement that local jurisdictions and the various licensing boards should remain responsible for enforcement issues; however, the Florida Building Commission should put forth a vigorous effort to coordinate education and licensing requirements as they relate to construction, inspections, and all of the professions involved in the process. Many feel there is a disconnect between the various professional and licensing boards, and some coordinating effort should be made to ensure consistency and afford the consumer with predictable protections.

## **Construction Practices**

Another general theme expressed is that a well trained and educated construction workforce is required to ensure proper installation and compliance with the requirements of the building code. Some of the options favored are training for construction managers, however many felt this is a business decision and should not be mandated but encouraged.

There were numerous recommendations for considering requiring additional licensing, with minimum education and qualification requirements, for the licensure of additional key trades such as drywall, framing, masonry, and concrete contractors/installers. In short, require licensing for all of the major subcontractor specialties in the home building construction process.

There was a strong support for ensuring the proper installation of products, with the realization that not all aspects of installation can be detected during the course of the inspection process. Options for addressing this, in addition to training, include requiring more detailed installation instructions and construction details, such as are required in commercial construction.

Another suggestion involves developing and requiring a contractors handbook with key aspects of the building code highlighted. Building officials in some jurisdictions have worked with homebuilders to identify the code areas and issues that have proven to be historically problematic.

There were some advocates for requiring additional levels of quality assurance, beyond the local building inspection process. Others feel that this should again, be optional and is a market decision. In fact, some homebuilders employ private inspection and plans review providers, and others hire a “parallel provider” who does additional and redundant inspections on key structural aspects of homebuilding to ensure strict compliance with the code and that certain standards of quality are met, as defined by the builder.

## **Inspection Practices**

In general, interviewees expressed respect for the efforts of local building officials while understaffed, underfunded, and overworked. In some cases design professionals and contractors rely on the building official to ensure that homes are designed and built to the code. This requires extra work by plans reviewers and additional re-inspections by building inspectors.

The issue of standardizing certain aspect of building inspections services, beyond compliance with the code, comes up against the issue of home rule, and the varying requirements, expertise, and resources of local building departments.

Building officials are required to provide an education and training function, and are successful to the extent that they have adequate resources to do this in addition to their permitting and inspection functions, which in a rapidly growing State, are extensive.

Again, some builders have hired private providers and third party professionals to provide additional levels of quality assurance for their projects.

Due to a heavy workload, and inability to maintain quality personnel as a result of inadequate resources, some interest groups expressed the believe that the potential exists for some buildings to be permitted and constructed without meeting all of the requirements of the Code. Again, funding is a critical issue expressed by all, and any additional duties for building departments will require additional resources.

### **Education**

A central theme from all interest groups, as previously discussed, is that of education. Interviewees expressed a believe that there should be an effort to enhance the education of the public on building code and related issues, on licensing and enforcement issues, and on providing accurate updates on developments related to the work of the Florida Building Commission.

There was widespread agreement that an educated and well trained construction workforce would aid with the correct installation of products and compliance with the building codes. Many stated that an effort should be undertaken to work with the various licensing boards and regulating agencies to coordinate training and education needs, to ensure reasonable and appropriate qualifications are in place, and to foster a knowledge of the building codes and the role they play in construction quality and life-safety.

Another element discussed by many, is that there should be some attempt at restoring a sense of craftsmanship, as exemplified in the past by apprenticeship programs. Again, the workforce should have the appropriate training and skills to undertake their respective trades.

## **IV. ANALYSIS OF FINDINGS**

There is a spectrum of views, on a range of issue related to construction quality generally, and construction and inspection practices specifically. Views range from a desire to regulate more protections to all that is required is already in place. It should be noted that, there are many interrelated issues and interest groups affected by the quality of construction and construction practices review issue, and no single process or option will adequately address the issue. Rather, a coordinating role will be required where issues of education, training and qualifications, licensing, building codes, inspection functions, public and private roles and responsibilities, construction professionals from design through installation trades, consumer interests, and executive and legislative policy decisions can be considered in a holistic and systematic manner.

To that end, most would agree that education and coordination should be the primary focus, as opposed to additional regulations. There are some building code issues, that should and indeed for the most part, are already under review by the Florida Building Commission. In addition, some products should be reviewed for suitability for some applications in Florida, especially those related to weatherproofing a home, and those whose structural integrity is easily compromised by moisture. The issue of workforce training was in the original plan for the development of the Florida Building Code system. In order to pursue this issue, consensus would have to be built between the various interest/stakeholder groups and additional funding and staffing would be required. This would require a policy decision between the Governor and legislators and implementation from state agency heads.

To a large extent quality as related to the durability and safety of homes, is an issue of using the correct materials and products, and installing them according to the installation instructions and in conformance with the requirements of the Florida Building Code. To the extent that contractors decide to do more than this, is a question of their personal commitment to their “product” and a business decision related to their desire to respond to market demands and expectations.

To the extent that the public is well educated on issues related to building codes including weatherproofing, mold, proper use of products and other consumer issues, the expectations for quality will be driven by their demands. The homebuilding industry will always respond to the requirements of the consumer, and an educated public may be willing to pay for a certain level of quality above that required. However, a consumer has every right to expect a home will be built to meet the Florida Building Code, and thus ensure a reasonable level of structural integrity, water tightness, correct use and installation of products, and life safety.

The homebuilder desires and requires a trained and qualified workforce, this is prerequisite to building a quality home that meets the Florida Building Code. In some cases, building officials have become the defacto educators to the requirements of the Code for the design professional, builder, and trade subcontractors. There are several provisions currently in place such as the private provider system authorized by Section 553.791, F.S. The Florida Building Commission is proposing changes to the private provider statute in their Report to the Governor and 2005 Legislature, that should provide additional enhancements to the system. Considerations should be given to providing relief in terms of resources to local building departments. Homebuilders should be encouraged to consider the use of third party quality assurance on their projects and to have properly trained and qualified job site supervisors. Additional subcontractor specialties should be reviewed and considered for licensure with minimum training and qualifications appropriate to their areas of specialty.

Finally, the issue of roles and responsibilities will have to be addressed. The Florida Building Commission is an existing forum with broad stakeholder representation and a proven commitment to consensus-building on important policy issues of impact to the entire State of Florida. To this end, the Commission could convene a process to fully air the issues and options, and develop a package of recommendations for consideration by the Governor and Legislature. Some of the recommendations could be implemented immediately by a consensus of the Commission. In certain ways, the finding of this assessment correlate well with those of the original Building Code Study Commission—which found an inconsistency of interpretation and enforcement, as well as a multitude of different building codes used around the State—in that there is a disconnected system and lack of coordination between the various professions, trades, associations, industries, regulating and licensing entities, and educational efforts related to construction and inspection practices.

## V. RECOMMENDATIONS

### **Recommendation 1**

**Stakeholder Workgroup Process.** The Commission convene a stakeholder workgroup process, similar to the product approval and private provider workgroups, to work with stakeholders to identify the issues, evaluate alternatives, and develop recommendations for enhancing coordination between the various entities charged with the education, licensing, enforcement, and code and standards development functions related to the construction and inspection of residential homes.

### **Recommendation 2**

**Building Code Enhancements.** The Commission proceed with its assessment and evaluation of issues identified from hurricane research and effect any code changes deemed appropriate. In specific, the Commission should review flashing and water infiltration/intrusion issues, roofing products, the suitability for use of certain products based on the research findings, and the required minimum inspections schedules for enhancements. These and additional weatherproofing aspects of home construction products, such as stucco, should have their standards reviewed, and then the Commission should determine whether to require additional installation details in the Code.

### **Recommendation 3**

**Coordination and Education.** After recommendation 1 is complete, and depending on the outcomes, the Commission should consider forming another Program Oversight Committee (POC) whose function is to serve as a liaison between the various groups charged with the education, licensing, and enforcement of construction and inspection practices. In addition, the POC would make recommendation to the Commission for providing practical, understandable, and accurate consumer information regarding codes and standards related to home construction and the work of the Florida Building Commission, including updates on the latest developments and efforts to enhance the Florida Building Code.

The POC could further function as an “advisory council” with the role of coordinating education, licensing, and education requirements of design and construction professionals and construction subcontractors. If funding and resources are not available for this function within the Department of Community Affairs, then consideration should be made to forming an advisory council to deal with the coordination issues.

### **Recommendation 4**

**Licensing.** The entities responsible for the licensing of critical subcontractor trades should review the various trades and determine whether to require licensing, qualifications, and training of additional subcontractor specialties associated with home construction. This issue should first be evaluated by the stakeholder workgroup outlined in Recommendation 1.

### **Recommendation 5**

**Private Provider Recommendations.** The Commission has submitted a package of recommendations to the Governor and 2005 Legislature with proposed enhancements to the private provider system authorized under Section 553.791, F.S. These recommendations should be considered, and additional programs proposed to work in conjunction with local building departments by providing additional levels of review for compliance with the code, such as third party quality assurance, should also be encouraged.

### **Recommendation 6**

**Binding Interpretations.** Consideration should be given to granting the Commission statutory authority to issue binding interpretation on the Florida Building Code. Proponents expressed a believe that this will provide a level of consistency for the interpretation of matters related to the Building Code and prevent inconsistent interpretations and enforcement at the local level.

### **Recommendation 7**

**Funding.** At the conclusion of a stakeholder recommendation process the issue of funding will need to be assessed and resources provided for the implementation of those recommendations that enjoy a high level of agreement. At a minimum, additional funding should be considered in order to assist the Commission with identifying research gaps, developing consensus on research needs and priorities, commissioning needed technical research, and providing a reasonable level of consumer education related to the Building Codes and the work of the Florida Building Commission.

### **Recommendation 8**

**Priority of Recommendations.** These recommendation should be considered as preliminary, and it is highly recommend that a thorough vetting of all the recommendation in this report be provided through the implementation of Recommendation 1. Namely, by convening a stakeholder workgroup overseen by the Florida Building Commission.

## **Interview Participants**

In conducting the assessment, the interviewer sought individual and group interviews with those stakeholder/interest groups who are affected by issues related to quality of construction. Below is a list of persons participating in the interview process and their affiliations. Many of the interviewees represent multiple stakeholder/interest groups but are listed under only one of their affiliations.

**1. FLORIDA BUILDING COMMISSION**

Raul L. Rodriguez, AIA  
Richard Dixon

**2. LEGAL**

Jim Richmond

**3. PUBLIC/CONSUMER**

Barry Ansbacher  
Steve Dwinell  
Robert Jones  
Paula Stich

**4. ARCHITECTS**

Raul L. Rodriguez, AIA

**5. ENGINEERS**

Gary Elzweig

**6. LOCAL GOVERNMENT**

George Wiggins

**7. BUILDING OFFICIALS**

Nick D'Andrea  
Dale Greiner

**8. HOME BUILDERS**

Dick Browdy  
Jack Glen  
Bing Hacker  
Bob White

**9. INSURANCE**

Jim Goodloe  
Do Kim

**10. FIRE PROTECTION**

John Calpini

**11. BUILDING TRADES**

Don Brown

Sean Morgan

Brian Meadows

**12. PRODUCT MANUFACTURERS**

Dave Olmstead

**13. PRIVATE PROVIDERS**

Frank O'Neill

## Feasibility Assessment Interviewer



*"The purpose of the Consortium is to serve as a neutral resource to assist citizens and public and private interests in Florida to seek cost-effective solutions to public disputes and problems through the use of alternative dispute resolution and consensus building."* --F.S. 240.702

**Our mission is to bring Floridians together to learn to transform unproductive conflict into cost-effective, sustainable solutions. The Consortium serves as a catalyst to create supportive policies and to help educate statewide on the appropriate use of mediation, facilitation and other collaborative problem-solving approaches to resolve a wide range of public policy issues.**

With the support of Florida State University and the Florida Legislature, the Consortium provides dispute resolution service, education, training and research to build a broader understanding of the value of collaborative approaches and create a cadre of citizens, leaders, professionals and students skilled in using collaborative consensus building and conflict resolution processes.

The Consortium offers neutral technical assistance to a wide range of professionals, agency staff and private citizens and organizations engaged in public problems throughout Florida. We help to design and implement efforts for intergovernmental collaboration, community and public problem-solving, and land-use and environmental dispute resolution. We also provide referral services connecting stakeholders and potential users with trained dispute resolution professionals.

**Jeff Blair** is faculty at Florida State University, and serves as Associate Director for the Florida Conflict Resolution Consortium. His work for the Consortium has included facilitation, process design, strategic planning, and consensus-building on multiple public policy initiatives. He has worked with state and local government representatives to design and implement collaborative approaches to planning, rule making, and dispute resolution with an emphasis on public participation in the design and implementation of policy. He has facilitated hundreds of rule development workshops and conducted negotiated rulemakings for various state agencies. In addition, he teaches numerous classes and conducts trainings in various dispute resolution topics for FAU, FIU, MDCCC, and various local governments. During the past six years he has served as the Consortium's project director for the Florida Building Commission, a 23 member Governor appointed stakeholder group who successfully created, implemented, and maintains the new statewide Florida Building Code. Other ongoing projects include serving as facilitator and conflict resolution consultant for state agency stakeholder advisory boards such as the Pest Control Enforcement Advisory Council and the Florida Coordinating Council on Mosquito Control. Mr. Blair has provided facilitation, planning, and process design for numerous non-profit organizations since 1977.

**APPENDIX I**

**FLORIDA BUILDING CODE AND  
FLORIDA FIRE PREVENTION CODE  
DUPLICATE PROVISIONS AND OVERLAPPING RESPONSIBILITIES**

**ASSESSMENT REPORT TO THE  
FLORIDA BUILDING COMMISSION**

**MAY 11, 2005**



**Report By Jeff A. Blair  
Florida State University**



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## **I. INTRODUCTION AND OVERVIEW**

The Florida Building Code and the Florida Fire Prevention Code, by design, contain overlapping technical provisions in order to ensure that buildings are designed and constructed with life-safety considerations as an integral part of both. In order to design buildings of certain size and occupancies both codes must be used together and one code may trigger the use of the other. In some instances the same provisions are in both codes, this is referred to as duplicate provisions. In other instances one code may reference the other, and in a few cases the two codes have conflicting requirements. In addition, the enforcement of the two codes, from plans review through final inspection, involve building and fire officials at the local, and in the case of fire, sometimes at the State level.

The development and implementation of the 2001 Florida Building Code required that the Florida Building Commission and the Division of State Fire Marshal work together to harmonize the codes. This was accomplished through the creation of a Joint Building Fire Technical Advisory Committee (TAC) comprised of the Commission's Fire TAC and the State Fire Marshal's Florida Fire Code Advisory Council. In regards to the technical provisions, to a large degree the TAC was successful in correlating the two codes and eliminating most conflicts.

The issue of enforcement and interpretation, is addressed in statute and requires the coordination and cooperation of the State Fire Marshal and the Florida Building Commission {F.S. 633.01 (5), F.S. 553.72 (5), and)}, and that conflicts are resolved in "favor of the requirement that offers the greatest degree of lifesafety or alternatives that would provide an equivalent degree of lifesafety and an equivalent method of construction" {F.S. 553.73 (1)(d)}.

To the extent that there are still conflicting requirements within the codes, and there remains some level of confusion regarding the authority and enforcement between building and fire officials, this assessment will address issues and recommendations related to the duplicate provisions and overlapping responsibilities between the codes, and between building and fire officials respectively.

At the April 19, 2004 meeting of the Florida Building Commission, the Commission was petitioned to issue a declaratory statement (DCA04-DEC-046) regarding jurisdictional and enforcement issues related to a building official's interpretation of authority related to enforcing certain provisions common to both codes. The Commission dismissed the petition and referred the matter back to the local administrative process for resolution. At the same meeting the Commission voted to conduct a joint project between the Florida Building Commission and Division of State Fire Marshal to identify and develop recommendations regarding duplicate provisions and overlapping responsibilities related to the Florida Building and Florida Fire Prevention Codes.

At the January 26, 2005 meeting of the Florida Building Commission, Chairman Rodriguez informed the Commission that an assessment project would commence with the goal of developing recommendations on how this issue should best be addressed.

This report presents the results of the assessment conducted on behalf of the Florida Building Commission and the Division of State Fire Marshal. It is based on interviews with the affected interests and a review of documentation. In addition, the assessment interviewer attended a Joint Building Fire TAC meeting and facilitated an issues identification session with the members.

There are no views attributed to specific individuals and findings represent a compilation of views representing a general level of agreement between interviewees. However, opinions run the gambit from the system is working fine to creating clearer lines of demarcation for authority and jurisdictional matters, to bifurcating and segregating the two codes entirely to removing some sections and referencing the other code by subject matter.

A central finding of the assessment is that, in regards to the code documents all conflicts should be resolved and a discussion should take place on whether to further partition the codes. In regards to enforcement issues, there is little support for further regulation, however there is support for reviewing authority and determining whether to more clearly delineate lines of demarcation for triggering either the building or fire official's review. Most agree that conflicts at the local enforcement level are to a large degree issue of coordination, cooperation, and policy for local jurisdictions. Finally, all agree that education and training are central to dealing with both code and enforcement issues and joint training between building and fire officials should be encouraged and supported.

## **II. THE ASSESSMENT PROCESS**

The purpose of the assessment was to consider the various issues related to the Florida Building Code and Florida Fire Prevention Code in regards to duplicate code provisions and the overlapping authorities of the building and fire officials charged with duties ranging from permitting to plans review, through inspections and approving buildings for occupancy. Interviewees were asked to identify what they consider to be the key issues related to the technical and jurisdictional aspects from the design, review, and enforcement of the codes, what were some acceptable options from their perspectives, and what role they felt the Commission and State Fire Marshal should play in any process convened to consider these issues.

This assessment was conducted by Jeff Blair of the Florida Conflict Resolution Consortium, a center based at Florida State University. Additional information on the assessment interviewer can be found in Appendix II of this report.

### **A. Conduct of the Assessment**

The assessment interviewer met initially with Chairman Raul L. Rodriguez, AIA and DCA staff to discuss the parameters of the assessment and to identify potential interviewees. Subsequently, the assessment interviewer met with Chief Jim Goodloe of the Division of State Fire Marshal to get the Division's perspective. Additional interviewees were suggested by those interviewed during the course of the project. Most interviews were conducted by phone and a meeting was held with the Joint Building Fire TAC. In addition, the assessment

interviewer reviewed relevant documents, including legislation. A list of persons interviewed is provided in Appendix I of this report.

## **B. Interview Questions**

- Are you aware of the purpose behind this Building Fire Code assessment?
- How does this issue affect and/or impact your interests?
- From your perspective what are the key issues that should be considered in any review/process regarding Duplicate Code Provisions and Overlapping Authority/Responsibilities?
- Where are the problems?
- Should there be any duplication between the codes? (does this provide flexibility to local jurisdictions); or, should the issues be separated and enforced along strict divisions of authority?
- What should the trigger be?
- Any suggestions for enhancing the current system (code duplications and roles/enforcement)?
- What would be the best format to review the issues and make recommendation?
- Should the Issues be Separated between Code and Authority?
- What do you see as the role of the Florida Building Commission?
- What do you see as the role of the State Fire Marshal?
- Who else should I talk to in order to get a complete picture of the situation?

## **III. FINDINGS OF THE ASSESSMENT BY ISSUES**

### **Statutory Considerations**

Interviewees agreed that the laws regarding conflicts between the Florida Building Code (FBC) and the Florida Fire Prevention Code (FFPC) are clear, and the process for resolving conflicts is now in place with the formation of the Joint Building Fire Technical Advisory Committee, constituted between the Florida Building Commission and Division of State Fire Marshal during the development of the 2001 Florida Building Code.

In addition, the authority to enforce the Codes is a function of the scopes of either the FBC or the FFPC and the technical provisions therein. In general the resolution of the technical and jurisdictional aspects of the two codes can be reviewed and resolved within the existing structure and would likely not require additional statutory considerations.

Below are cited the statutory references from Chapter 633—Fire Prevention and Control, and Chapter 553—Building Construction Standards, that relate to resolving conflicts between the FBC and the FFPC:

**633.01 (5)** It is the intent of the Legislature that there are to be no conflicting requirements between the Florida Fire Prevention Code and the Life Safety Code

authorized by this chapter and the provisions of the Florida Building Code or conflicts in their enforcement and interpretation. Potential conflicts shall be resolved through coordination and cooperation of the State Fire Marshal and the Florida Building Commission as provided by this chapter and part IV of chapter 553.

**553.72 (5)** It is the intent of the Legislature that there be no conflicting requirements between the Florida Fire Prevention Code and the Life Safety Code of the state and other provisions of the Florida Building Code or conflicts in their enforcement and interpretation. Potential conflicts shall be resolved through coordination and cooperation of the State Fire Marshal and the Florida Building Commission as provided by this part and chapter 633.

**553.73 (1)(d)** Conflicting requirements between the Florida Building Code and the Florida Fire Prevention Code and Life Safety Code of the state established pursuant to ss. 633.022 and 633.025 shall be resolved by agreement between the commission and the State Fire Marshal in favor of the requirement that offers the greatest degree of lifesafety or alternatives that would provide an equivalent degree of lifesafety and an equivalent method of construction. If the commission and State Fire Marshal are unable to agree on a resolution, the question shall be referred to a mediator, mutually agreeable to both parties, to resolve the conflict in favor of the provision that offers the greatest lifesafety, or alternatives that would provide an equivalent degree of lifesafety and an equivalent method of construction.

### **Duplicate Technical Code Provisions**

The issue of duplicate technical code provisions has three main components: whether there should be any overlap, resolving conflicts where there is overlap, and whether to further partition the codes by removing provisions from one and referencing the other.

In general, interviewees agreed that there is a need to maintain some level of duplication between the Codes in order to ensure that both documents are used in conjunction with each other for the design, permitting, inspection, and enforcement of the appropriate codes in order to provide safe and structurally sound buildings. At a minimum each codes should reference the other where appropriate to ensure they are used together. However, beyond this general level of agreement there is a broad range of divergent views expressed by the interviewees representing the various interest groups affected by this issue.

All agree that conflicts where they exist should be resolved, and this should be a priority for the Commission and State Fire Marshal. Some maintain this is all that should be done and others prefer a thorough review of the two documents with consideration given to further partitioning of the FBC and FFPC.

On the issue of partitioning, or further segregation of the codes by replacing the requirements of one code in favor of the requirements of the other code, there is only agreement that a review should be made and the issue considered. The views range from no further partitioning, to additional partitioning, to a total partitioning with only references to the other code. As an

example there is support, especially among design professionals, for partitioning the codes in favor of occupancy issues being handled exclusively by the Florida Building Code and life-safety provisions—such as those found in Chapter 10 “Means of Egress”—being handled exclusively by the Florida Fire Prevention Code. Again, each code would reference the other within the appropriate sections of each.

### **Authority/Jurisdictional Overlap**

There is some general level of agreement, although not universal, that the powers of the building and fire officials are clearly outlined within the scopes of the FBC and FFPC, and authorized by statute. How these duties and authorities are sorted out at the local level is another issue, and varies greatly by jurisdiction.

In general, most jurisdictions have developed lines of communication between their building and fire officials with clear guidance on how permitting, plans review, inspections, and enforcement functions are handled. In fact, building and fire officials have worked together to develop and implement cooperative agreements on how to more efficiently conduct their respective responsibilities. This varies by jurisdiction and is a function of having sufficient resources to hire or contract with the appropriately licensed personnel for building and fire functions, and the organizational and political commitment necessary to implement an efficient process.

Nevertheless, since there are many areas of potential overlap ranging from permitting, plans review, fee collection, inspections, enforcement, to final approval of the building for occupancy, there is certainly room for confusion within and between jurisdictions. These overlaps affect many elements of the life-safety components of buildings and include the review and inspection of electrical, mechanical, plumbing, and fire.

Industry members complain of inconsistent interpretations, technical requirements, and inspection and enforcement between jurisdictions, even within the same county. In addition, many believe that in the cases where the system is not working, this is largely a function of personality conflicts, concern over turf and power, and a general lack of cooperation and collaboration that must be corrected by the affected local jurisdictions.

Irrespective of the above considerations, and acknowledging that local jurisdictions remain largely responsible for the efficacy of their local coordination efforts and functions, there is still a perceived desire and a sufficient level of support for reviewing the two codes and developing clearer lines of demarcation, by providing guidance on which aspects are handled by the building or fire official. Again, most believe that in the final analysis, this remains an issue of coordination and cooperation best resolved at the local level. Additionally, many expressed a concern that any further defining of authority could restrict and prevent local jurisdictions from making the most efficient use of limited personnel.

It should be noted that many, including building and fire officials, believe that having “two sets of eyes”, with overlapping responsibilities is a positive thing and offers a greater level of protection to the public. Fire officials note that they remain responsible for the safety of buildings after they has been constructed and occupied, and have a vested interest in ensuring buildings are constructed with the proper life-safety requirements.

In general, any review and clarification of duties and authorities would need to pay close attention to the needs of local government to ensure that maximum flexibility for the utilization of personnel is maintained within any proposed refinements to the existing system.

### **Training and Education**

This is the one area that enjoyed universal agreement from all interviewees, representing all interest groups. The level of support for additional trainings and education regarding interpreting and enforcing the FBC and the FFPC ranged from, this is all that should be done to this should be a component of a more comprehensive review of the existing system.

Interviewees expressed a desire to see more co-training with building and fire officials participating together. Trainings could be developed that highlight those elements of both codes where there is the greatest level of confusion. The suggested goal is to provide an educational venue where conflicts are highlighted and consistent interpretation and enforcement across disciplines is encouraged.

### **Licensing Boards**

Many stated that an effort should be undertaken to work with the various licensing boards and regulating agencies to coordinate training and education needs, and to ensure that the appropriate building and fire disciplines have the requisite knowledge regarding their authorities and duties related to enforcing the fire protection and life-safety requirements of the FBC and FFPC.

### **Role of the Florida Building Commission and Division of State Fire Marshal**

Interviewees generally agreed that any project to review duplicate code provisions and issues related to overlapping responsibilities between building and fire officials should be a joint project with the Florida Building Commission and the Division of State Fire Marshal.

### **Joint Building Fire TAC**

There is an existing Committee—The Joint Building Fire TAC—constituted within the Florida Building Commission and the Division of State Fire Marshal. This Committee is comprised of the Florida Building Commission’s Fire Technical Advisory Committee and the State Fire Marshal’s Florida Fire Code Advisory Council, and was organized to harmonize the Building and Fire Codes during the development of the Florida Building Code. This group continues to meet on an ongoing basis to discuss issues related to the two codes and enjoys support from the building and fire perspectives. Interviewees agreed that this group, with its broad stakeholder representation, is the logical body to consider recommendations related to the review of duplicate code provisions and issues related to overlapping responsibilities between building and fire officials.

#### **IV. ANALYSIS OF FINDINGS**

There is a spectrum of views, on a range of issues related to the enforcement and interpretation of the fire prevention and life-safety requirements of the Florida Building Code and the Florida Fire Prevention Code. This manifests in two key areas: the duplication of the technical code requirements within the two codes, and the overlapping authority and responsibilities inherent in the review and inspection requirements necessary to ensure compliance with the life-safety and fire prevention provisions of the codes.

There is agreement on the need to maintain some level of overlapping technical provisions within the codes, at a minimum to ensure they are both used together for the design, permitting, inspection, and final approval of buildings prior to occupancy. In addition, consideration has to be given to the ongoing life-safety requirements of buildings once they are occupied. In short, how will the public best be served in this regard.

In regards to the technical provisions, a review should be undertaken to eliminate existing conflicts, and consider whether further partitioning of the code—that is replacing the requirements of one code in favor of the other and referencing the applicable sections—would serve to clarify the requirements of the codes as well as the authorities and duties invoked within the scope of the respective codes.

The issue of further defining duties, authorities, and responsibilities, should be reviewed but must be considered in the context of maintaining flexibility and authority for local governments to manage their personnel in an efficacious manner consistent with their local policies.

Education and training will be the key to the success of any effort designed to enhance the coordination and consistency of code requirements and interpretations between building and fire officials in the various jurisdictions around the State. In general, the laws and code are reasonably clear and most changes should focus on education and training with an emphasis on conducting co-trainings with and between building and fire officials. Attention should be given to areas of ongoing conflicts, misunderstandings, and inconsistent interpretations with a focus on providing clear guidance with the support of the building and fire officials and their respective associations.

Finally, the issue of venue will have to be addressed. The Florida Building Commission's and Division of State Fire Marshal's Joint Building Fire Technical Advisory Committee is an existing forum with broad stakeholder representation in the building and fire arenas, and a proven commitment to consensus-building on important policy issues of impact to the entire State of Florida regarding fire prevention and life-safety. To this end, the Commission and Division of State Fire Marshal could convene a facilitated process to fully air the issues and options, and develop a package of recommendations for consideration by the Commission and State Fire Marshall to enhance the review, enforcement, and interpretation of the codes, as well as enhancements to the education and training system required to educate the building and fire officials charged with the implementation of the entire system related to fire prevention and life-safety, and necessary to protect the safety and welfare of the citizens and property within the state of Florida.

## V. RECOMMENDATIONS

**Convene Joint Building Fire TAC.** The Commission and State Fire Marshal convene the Joint Building Fire TAC to work with stakeholders within a facilitated consensus-building process to identify the issues, evaluate alternatives, and develop recommendations for:

- Resolving existing conflicts between the Florida Building Code and Florida Fire Prevention Code.
- Review and decide whether any additional partitioning of the codes is warranted.
- Review and decide whether to provide further lines of demarcation for the authorities and duties of the building and fire officials regarding fire prevention and life-safety enforcement.
- In conjunction with the building officials and fire officials associations, consider developing or refining a process for fostering the identification and ongoing discussion and resolution of issues that consistently create confusion and inconsistent interpretations, and make it available to local jurisdictions throughout the State.
- Make recommendations on training and education topics and issues that will foster closer cooperation and coordination, as well as enhance consistency within and between the disciplines charged with the enforcement and interpretation of the fire prevention and life-safety provisions of the Florida Building Code and the Florida Fire Prevention Code.
- Communicate with the respective licensing boards and building and fire official associations, regarding the development and coordination of training and educational opportunities for cross-training between the building and fire disciplines to enhance and clarify the existing fire protection and life-safety system.

## **Interview Participants**

In conducting the assessment, the interviewer sought individual and group interviews with those stakeholder/interest groups who are affected by issues related to the overlapping technical provisions and/or issues of authority and jurisdictions regarding the Florida Building Code and Florida Fire Prevention Code. Below is a list of persons participating in the interview process and their affiliations. Many of the interviewees represent multiple stakeholder/interest groups but are listed under only one of their affiliations. If an interviewee is listed twice it is because they were interviewed as part of a group and again individually.

**1. FLORIDA BUILDING COMMISSION**

Raul L. Rodriguez, AIA  
Richard Dixon  
Mo Madani  
Jim Richmond

**2. DIVISION OF STATE FIRE MARSHAL**

Jim Goodloe, Chief  
John Calpini

**3. FIRE TAC (Florida Building Commission)**

John Calpini  
Hamid Bahadori  
Nick D'Andrea  
Dale Greiner  
Jeff Gross

**4. FLORIDA FIRE CODE ADVISORY COUNCIL (State Fire Marshal)**

Tony Apfelbeck  
Ray Cicero  
Jeff Collins  
Jon Hamrick  
Brad Schiffer  
Richard Seidel  
Andrew Valente

**5. DESIGN PROFESSIONALS**

**Architects**

Raul L. Rodriguez, AIA

Luis Vila

**Fire Protection Engineers**

Hamid Bahadori

Andrew Valente

**6. EDUCATION FACILITIES**

Tom Deckert

Jon Hamrick

**7. LOCAL GOVERNMENT**

Herminio Gonzalez

George Wiggins

**8. BUILDING OFFICIALS**

Joe Crum

Nick D'Andrea

Dale Greiner

Med Kopczynski

**9. FIRE OFFICIALS**

Dennis Marshall

Kevin Carrier

**10. FIRE PROTECTION INDUSTRY**

Buddy DeWar

Pete Schwab

Bob Neely

Roy Pollack

Bob Worthy

David Kinchla

**11. HOME BUILDERS**

Jack Glen

## Feasibility Assessment Interviewer



*"The purpose of the Consortium is to serve as a neutral resource to assist citizens and public and private interests in Florida to seek cost-effective solutions to public disputes and problems through the use of alternative dispute resolution and consensus building."* --F.S. 240.702

**Our mission is to bring Floridians together to learn to transform unproductive conflict into cost-effective, sustainable solutions. The Consortium serves as a catalyst to create supportive policies and to help educate statewide on the appropriate use of mediation, facilitation and other collaborative problem-solving approaches to resolve a wide range of public policy issues.**

With the support of Florida State University and the Florida Legislature, the Consortium provides dispute resolution service, education, training and research to build a broader understanding of the value of collaborative approaches and create a cadre of citizens, leaders, professionals and students skilled in using collaborative consensus building and conflict resolution processes.

The Consortium offers neutral technical assistance to a wide range of professionals, agency staff and private citizens and organizations engaged in public problems throughout Florida. We help to design and implement efforts for intergovernmental collaboration, community and public problem-solving, and land-use and environmental dispute resolution. We also provide referral services connecting stakeholders and potential users with trained dispute resolution professionals.

**Jeff Blair** is faculty at Florida State University, and serves as Associate Director for the Florida Conflict Resolution Consortium. His work for the Consortium has included facilitation, process design, strategic planning, and consensus-building on multiple public policy initiatives. He has worked with state and local government representatives to design and implement collaborative approaches to planning, rule making, and dispute resolution with an emphasis on public participation in the design and implementation of policy. He has facilitated hundreds of rule development workshops and conducted negotiated rulemakings for various state agencies. In addition, he teaches numerous classes and conducts trainings in various dispute resolution topics for FAU, FIU, MDCCC, and various local governments. During the past seven years he has served as the Consortium's project director for the Florida Building Commission, a 23 member Governor appointed stakeholder group who successfully created, implemented, and maintains the new statewide Florida Building Code. Other ongoing projects include serving as facilitator and conflict resolution consultant for state agency stakeholder advisory boards such as the Pest Control Enforcement Advisory Council and the Florida Coordinating Council on Mosquito Control. Mr. Blair has provided facilitation, planning, and process design for numerous non-profit organizations since 1977.

**Meeting of the Joint Building Fire Technical Advisory Committee  
and the Florida Fire Code Advisory Council  
Prime Osborn Convention Center – Room 204/205  
Time: 1-3 p.m.  
1000 Water Street, Jacksonville, Florida  
February 10, 2005**

Committee members present from the Joint Building/Fire TAC:

Jeff Gross, Dale Greiner, Tony Apfelbeck , Jon Calpini, Hamid Bahadori, and Nick D'Andrea.

**Agenda.** Review and discuss the overlap of authority within the Florida Fire Prevention Code & the Florida Building Code:

The Joint Committee discussed the issue at hand by first reviewing the staff analysis delineating the technical overlap between the two Codes and then provided the following issues and concerns with regard to overlap of authority within the two codes:

- Code application problem.
- Lack of education necessary to clarify authorities and fringing issues.
- Ch. 553, FS is followed all the time and we see no problem.
- Conflicts occur when parties are not working together.
- Conflicts within the codes have been resolved. The problem is redundancy (two people doing the same thing). The issue is a business perspective.
- It would be good to have all the requirements in one Code.
- The problem at hand is common when the authority is divided between two jurisdictions. Single jurisdictions deemed to have no problem.
- The problem is two people doing the same thing in the field.
- FFPC must be enforced by the Fire Marshal.
- The technical provisions of the codes are not the problem. We should focus on resolving the request for Dec. Statements.
- The Law is very clear with regard to license requirements and responsibilities.
- You need to have two sets of eyes to inspect and review projects.
- You need the two authorities because each entity is looking at different parts of the project.
- You need to get rid of redundancy so that only one person doing one thing.
- Removing and stripping requirements for codes is a difficult task.
- Recommend not dealing with the technical issues at this time and should first focus on training and resolving requests for Dec. Statements.
- The issue is to define the line of responsibilities between the two authorities.
- We need to work together. Redundancy is not a bad thing. Working together is what serves the people best.
- At the end (after CO), the building is the responsibility of the Fire Marshal.

**APPENDIX J**

**ICC PARTICIPATION WORKGROUP  
REPORT TO THE FLORIDA BUILDING COMMISSION**

**FACILITATOR'S SUMMARY REPORT OF THE  
MARCH 15 , 2005 MEETING**

**MIAMI, FLORIDA**

**Meeting Design & Facilitation By**



**Report By Jeff A. Blair  
Florida State University**

**[jblair@fsu.edu](mailto:jblair@fsu.edu)  
<http://consensus.fsu.edu>**

## **REPORT OF THE ICC PARTICIPATION WORKGROUP MEETING II—MARCH 15, 2005**

### **Overview**

At the October 2004 Commission meeting, Chairman Rodriguez stated that the Commission's most pressing and time consuming issue is the code development process. He indicated that the Commission needs to maintain and update the Code with an emphasis on Florida Specific issues and defer to the national model code development process for issues which are more general and national in scope. As a result of delays arising from the code update process, the Chair stated, "It is my recommendation that the Commission participate in the ICC code development process by providing input related to amending the base national model code without having to make these nationally applicable type of changes on an interim basis in the Florida Building Code."

The Chair indicated that participating in the ICC process, the Commission will be able to influence code changes on non-Florida specific issues as well as work on a broader national consensus for the Florida specific issues that the Commission has had to address before the national processes can achieve a consensus solution.

The Chair appointed Commissioner D'Andrea to head up a task group that would investigate the Commission's options including how they could work with state partners like BOAF, and then to make a recommendation for a practical process for the Commission to use in participating in the ICC code development processes.

On December 7, 2004 the ICC Workgroup met for the first time and developed a list of issues and options related to the Commission's participation in the ICC code development process. Following are the issues and options identified at the December meeting:

### **ISSUES IDENTIFIED FOR EVALUATION**

- Resources and funding for FBC participation .
- Roles of FBC and stakeholder groups in participating (i.e., DCA staff, FBC representatives, TAC's, stakeholder groups, etc.).
- How would/should the FBC participate as an entity.
- Florida specific issues—ensuring they are addressed in the ICC process.
- Coordinating overall state participation in the ICC process—with all of the entities that already participate in the process.
- Developing timelines for the process that works with the FBC process.

### **OPTIONS IDENTIFIED BY WORKGROUP**

- Need an individual to interface with BOAF/stakeholders to ensure consistency of reporting and monitoring.
- Avoid duplicate participation and hire a consultant to serve as a liaison to FBC (i.e., regional fire committees).

- Allow FBC Commissioners to be on ICC Committees.
- Develop a list of current ICC participants and coordinate for a Florida unified effort.
- Liaison to review ICC committee work for the FBC and then utilize the FBC TAC's or a special committee charged with evaluating Florida specific issues and representing them to the ICC process.

## **AGENDA FOR THE MARCH MEETING**

- Review Issues and Options Identified During Meeting I—December 7, 2004
- ICC Participation Presentation by Phil McMahon
- Questions and Answers on ICC Presentation
- Discuss and Develop Package of Recommendations to Deliver to the Commission

## **ICC PARTICIPATION COMMITTEE MEMBERSHIP**

Nick D'Andrea, chair

Hamid Bahadori  
Steve Bassett  
Joe Belcher  
Joe Crum  
Jack Glenn  
Mike Goolsby  
Dale Greiner  
Kari Hebrank  
Gary Kozan  
Phil McMahan  
Steve Munnell  
Craig Parrino  
Larry Schneider  
George Wiggins

## SUMMARY OF MEETING

The meeting started with a presentation by Phil McMahon on ICC participation. Following a thorough discussion and evaluation of the options and issues, the Workgroup agreed in concept that the Commission's participation should be limited to utilizing the existing resources who currently participate in the ICC code development process (i.e., BOAF, South Florida, and FBC TAC members who volunteer to participate), and allow them to propose code amendments to the Commission's TAC's. BOAF will serve as the coordinating entity and report to the Commission on a regular basis using their Code Development Committee to communicate to FBC/TAC's regarding proposed code amendments.

In general, there was agreement that there should be a coordinated Florida approach to participation, and an effort should be made to communicate with all of the existing Florida entities on how to develop a coordinated effort.

A straw poll was taken and 9 members voted in favor and 3 against using the Commission's TAC's to review and monitor proposed ICC code amendments.

There were many views expressed ranging from a formal Commission participation through membership, to tracking ICC code proposals with the Commission's TACS, to a very limited participation focusing only on Florida issues.

## MEETING DISCUSSION

Following are questions, comments, and options proposed during the course of the meeting: Questions regarding ICC participation (following McMahon's presentation)

*Is there one area which dominates votes?*

West Coast, East Coast, and the South.

*What are the chances of committee recommendations being approved in assembly?*

About 80% of time actions are approved.

2/3 of vote is needed to overturn a committee recommendation.

*Does the ICC review code changes?*

Staff reviews the format,

Staff provides comments on amendments,

Staff reviews the appropriate standards, and

Listens to all views.

*Who can be a committee member ?*

1/3 code officials, 2/3 industry people with general interest and A/E.

*Who can vote at final hearing?*

Any active member.

A professional member can not vote.

The final action meeting makes or breaks the action & normally at this meeting

Less people show up.

*How are committee members selected?*

Any active member can apply for a seat on a professional committee via application based on qualifications.

Competing industries are involved in process and push for actions to be approved.

### **How should the Commission participate in the ICC Process?**

Coordination is needed to incorporate Florida issues.

Look at FBC to become members and coordinate Florida and ICC at the same time.

Submit code changes directly to the ICC. If you are on a committee ICC funds travel expenses

Is the FBC required to adopt up to date changes to the code?

The FBC is required to review the changes and then recommend adoption

We should explore Florida specific changes to ICC.

An all Florida effort should be made – BOAF, South Florida & FBC should coordinate efforts and also coordinate efforts with the southern block of members Regions 8 &9 of the ICC.

FBC and TAC's should coordinate and review all proposed code changes.

Use TAC's in a timely manner to Review ICC proposed actions and then coordinate actions.

Pay closer attention to model FBC actions after the ICC process.

ICC will e-mail proposed changes directly to TAC's if we provide addresses.

*Do we want to submit code changes to ICC?*

Yes. Use TAC's as clearinghouses for the FBC to coordinate a unified Florida submittal for ICC changes. Whatever does not go in to the ICC process can be amended at the State level.

Is there a process to guide us in submitting regional changes to the codes?

ICC staff looks at regional issues.

Going through the ICC will expend a lot of time and effort at the ICC level and then must come back to the FBC. Florida specific amendments may benefit other coastal states.

Dealing with work at the national level may minimize the work done at the Florida level.

Which way do we look at future changes FL, then ICC or ICC, then FL?

Concern for the utilization of limited volunteer Florida resources.

Transmit info to municipalities who already participate.

Code changes being submitted to the ICC must be defended in person, a representative must be present.

### **Straw Poll**

**The FBC will participate using TAC's to review changes in the ICC process? 9 Y/3 N**

#### **Comment from Members Opposed to Concept:**

- Participation will be out of control with regards to resources human and financial.
- Objection is to deferring the changes from FBC to ICC.
- We need to Provide Pro's and Con's.
- Need to perform a cost-benefit analysis.

TAC's used as the starting point for analysis of proposed changes to the ICC and FBC.

#### **Issues for FBC to Address**

- Staffing
- Funding
- Cost-Benefit Analysis