

**Minutes of the North Carolina Building Code Council**  
**March 10-11, 2008**  
**Raleigh, NC**

All members of the North Carolina Building Code Council were present with the exception of Jack Neel. Four new members were announced and welcomed to the Building Code Council. The new members are Kim Reitterer, Cindy Browning, Ed Moore, and Ralph Euchner.

The following are summary minutes. The official minutes of this meeting are recorded on CD. Anyone desiring verbatim CDs or excerpts from these CDs should contact the Engineering Division of the NC Department of Insurance for information and reproduction costs. The next scheduled NC Building Code Council meeting will be held June 9-10, 2008 at the NC Department of Insurance, OSFM, 322 Chapanoke Road, Raleigh, North Carolina, 27603 in the classroom downstairs.

**Part A – Administrative Items**

**Item A – 1 Executive Order: Inquire upon conflicts of interest or appearance of conflicts of interest that exist within the Council.**

There were no actual or potential conflicts of interest noted.

**Item A – 2 Approval of minutes of the December 11, 2007 NC Building Code Council Meeting.**

Motion – Butch Simmons/Second – Barry Maness/Passed – The December 11, 2007 minutes were approved unanimously with one amendment. The amendment is on page 3 in Item B – 3, which contains the word “of” and it needs to be changed to the word “or”.

**Item A – 3 Letter from Carlos L. Bell, Jr., with Thomas Harris Building & Design, requesting the replacement of excerpted Plumbing, Mechanical, Electrical and Fuel Gas Chapters in the NC Residential Code Book.**

Motion – David Smith/Second – Butch Simmons/Passed – The motion was passed unanimously to direct the Committees to consider this request when drafting the 2012 NC Residential Code.

**Item A – 4 Information for the Building Code Council about the Ocean Isle Beach fire.**

This letter will be sent to the Residential Committee for review.

**Item A – 5 Rules Review Commission meeting report – 1/20/08.**

Barry Gupton gave the Rules Review Commission report. There is no action required on this item.

The following rules have been adopted by the Building Code Council and approved by the Rules Review Commission, but are subject to review in the 2008 Legislative Session.

- Building Code, Section 903.2.1.2, A-2 Sprinkler Threshold
- Residential Code, Section R202, Windborne Debris Region
- Residential Code, Section R324, Elevators within dwellings

**Part B – New Petitions for Rulemaking**

**Item B – 1 Request by Wanda Edwards, with IBHS, to amend the 2006 NC Residential Code for One and Two Family Dwellings, Section R202. The proposed amendment is as follows:**

**R202 Definitions. WINDBORNE DEBRIS REGION.** Areas within hurricane-prone regions defined as ~~that area east of the inland waterway from the NC/SC state line north to Beaufort Inlet and from that point to include the barrier islands to the NC/VA state line.~~ within one mile of the coastal mean high water line where the basic wind speed is 110 mph or greater, or where the basic wind speed is equal to or greater than 120 mph or Hawaii.

Motion – Tom Turner/Second – Barry Maness/Denied – The petition was denied.

**Item B – 2 Request by Wanda Edwards, with IBHS, to amend the 2006 NC Building Code, Section 1609.2. The proposed amendment is as follows:**

**1609.2 DEFINITIONS. WIND-BORNE DEBRIS REGION.** Areas within hurricane-prone regions defined as ~~that area east of the inland waterway from the NC/SC state line north to Beaufort Inlet and from that point to include the barrier islands to the NC/VA state line.~~ within one mile of the coastal mean high water line where the basic wind speed is 110 mph or greater, or where the basic wind speed is equal to or greater than 120 mph or Hawaii.

Motion – Tom Turner/Second – Barry Maness/Denied – The petition was denied.

**Item B – 3 Request by Craig J. Froeter, Froet Industries LLC, to amend the 2006 NC Plumbing Code, Section 1105. The proposed amendment is as follows:**

**1107.3 Sizing of secondary drains.** Secondary (emergency) roof drain systems shall be sized in accordance with section 1106 based on the rainfall rate indicated in figure ~~1106.1a~~ 1106.1.

Motion – Al Bass/Second – Butch Simmons/Passed – The petition was granted unanimously.

**Item B – 4 Request by Craig J. Froeter, Froet Industries LLC, to amend the 2006 NC Plumbing Code, Section 1105. The proposed amendment is as follows:**

**1105.1 Strainers.** Roof drains shall have strainers extending not less than 4 3 inches (~~102mm~~ 76mm) above the surface of the roof.

Motion – Al Bass/Second – Butch Simmons/ Passed – The petition was granted unanimously.

**Item B-5 Request by Armin J. Wallner, Catawba County Government, to amend the 2009 NC Residential Code, Section R403.1 and add Appendix Q to recognize discontinuous footings. The proposed amendment is as follows:**

**R403.1 General.** All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, wood foundations, or other approved structural systems which shall be of sufficient design to accommodate all loads according to Section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. Footings shall be supported on undisturbed natural soils or engineered fill.

Discontinuous footings shall be permitted to be constructed in accordance with ACI 332-04 for Concrete foundation walls and Appendix Q for Masonry foundation walls.

The proposed Appendix Q text may be viewed at the following link:

[http://www.ncdoi.com/OSFM/Engineering/BCC/engineering\\_bcc\\_minutes.asp](http://www.ncdoi.com/OSFM/Engineering/BCC/engineering_bcc_minutes.asp)

Motion – Mack Nixon/Second – Barry Maness/Passed – The petition was granted unanimously.

**Item B-6 Request by Al Bass, Mechanical Committee, to amend the 2009 NC Plumbing Code, Section 301.3 and add Appendix C-1 for Rain Water Recycling Systems. The proposed amendment is as follows:**

**301.3 Connections to the sanitary drainage system.** All plumbing fixtures, drains, appurtenances and appliances used to receive or discharge liquid wastes or sewage shall be directly connected to the sanitary drainage system of the building or premises, in accordance with the requirements of this code. This section shall not be construed to prevent the indirect waste systems required by Chapter 8. All drain,

waste and vent piping associated with gray water or rain water recycling systems shall be installed in full compliance with this code.

The proposed Appendix C-1 text may be viewed at the following link:  
[http://www.ncdoi.com/OSFM/Engineering/BCC/engineering\\_bcc\\_minutes.asp](http://www.ncdoi.com/OSFM/Engineering/BCC/engineering_bcc_minutes.asp)

Motion – Steve Knight/Second/Passed – The petition was granted unanimously.

Appendix C-1 did not meet the Chairman's rules and was sent back to the Mechanical Committee.

### **Part C – Notice of Rulemaking Proceedings and Public Hearing**

The following Petitions for Rulemaking have been granted by the Council. Notice of Rulemaking proceedings has been made. The Public Hearing was held on March 10, 2008 and the Final Adoption meeting may take place on or after June 10, 2008.

**Item C – 1 Request by Bryan T. Readling, APA – The Engineered Wood Association to amend the 2006 NC Residential Code for One and Two Family Dwellings, Section 4404.4. The proposed amendment is as follows:**

**4404.4 Exterior Concrete Slab-on-grade Footings.** Vertical reinforcement shall be installed at intervals not to exceed Table 4404.1.1 and shall terminate in a double sole plate.

**Exception:** Vertical reinforcement (anchorage) shall be installed at intervals not to exceed Table 4401.1a. where the bars terminate in a single sole plate. Approved strap anchors or wood structural panels shall be installed to provide a continuous load-path from the single sole plate to the wall.

**4406.3 Gable endwalls.** Gable endwalls in the 110, 120, and 130 mph (48 m/s, 53 m/s, 57 m/s) wind zones shall either be supported by lateral bracing at the ceiling or have continuous studs from the floor to the roof. 2 x 4 studs at 16 inches (406 mm) on center are limited to 10 feet (3048) in length between supports. Nonbearing 2 x 6 SPF No.2 studs at 16 inches (406 mm) on center with 3/8 inch wood structural panel sheathing are limited to unsupported lengths of 18 feet (5486) in 110 mph (48 m/s), 16 feet (4877) in 120 mph (53 m/s) and 14 feet (4267 mm) in 130 mph (57 m/s) wind zones. Wood structural panel sheathing shall extend 12 inches (305 mm) beyond horizontal construction joints except where the horizontal joint occurs over minimum 1 inch (25 mm) thick OSB or plywood rimboard with a minimum 1-1/2 inch (38 mm) overlap.

**4408.4 Anchorage using wood structural panels.** Wood structural panel sheathing may be used to resist both lateral load and uplift simultaneously. Panels shall be installed as follows:

1. Panels may be installed with face grain parallel or perpendicular to studs.
2. Panels shall be 3/8 inch (9 mm) minimum thickness.
3. Nail spacing shall be 8d at 6 inches (152 mm) on center along vertical edges of panel and 12 inches (305 mm) at intermediate vertical framing.
4. Horizontal nail spacing at double row of 8d staggered at 3 inches (76 mm) on center.
5. Panel shall extend 12 inches (305 mm) beyond horizontal construction joints and shall overlap girders their full depth except where the horizontal joint occurs over minimum 1 inch (25 mm) thick OSB or plywood rimboard with a minimum 1-1/2 inch (38 mm) overlap.
6. Panel attachment to framing shall be as illustrated in Figure 4408.4.
7. Blocking shall be required at all joints if sheathing is used to resist uplift.

Bryan Reading, with the Engineered Wood Association, recommends the Council adopt the code change.

John Haluska, with Norwood Industries, recommends the Council adopt the code change.

**Item C – 2 Request by Julius Ballanco, President of JB Engineering and Code Consulting, P.C., to amend the 2006 NC Mechanical Code, Section 504.2. The proposed amendment is as follows:**

**504.2 Exhaust penetrations.** Where a clothes dryer exhaust duct penetrates a wall or ceiling membrane, the annular space shall be sealed with noncombustible material, approved fire caulking, or a noncombustible dryer exhaust duct wall receptacle. Ducts that exhaust clothes dryers shall not penetrate or be located within any fireblocking, draftstopping or any wall, floor/ceiling or other assembly required by the International Building Code to be fire-resistance rated, unless such duct is constructed of galvanized steel or aluminum of the thickness specified in Section 603.4 and the fire-resistance rating is maintained in accordance with the International Building Code. Fire dampers, combination fire/smoke dampers and any similar devices that will obstruct the exhaust flow, shall be prohibited in clothes dryer exhaust ducts.

There were no comments from the public on this item.

**Item C – 3 Request by Curt Willis, Construction Inspections Administrator with the City of Raleigh, to amend the 2006 NC Building Code. The proposed amendment is as follows:**

**704.15 Soffit in Group R.** In Group R buildings of combustible construction the soffit material shall be securely attached to framing members and shall be constructed using either non-combustible soffit material, fire retardant treated soffit material, vinyl soffit installed over 3/4 inch wood sheathing of 5/8 inch gypsum board, or aluminum soffit installed over 3/4 inch wood sheathing or 5/8 inch gypsum board.

Venting requirements shall apply to both soffit and underlayments and shall be per section 1203.2 of the NCSBC.

**1405.13.2 Flame Spread.** Vinyl Siding and vinyl soffit materials when used in Group R buildings shall have a Flame Spread Index of 25 or less as tested in accordance with ASTM E-84.

**R302.4 Flame Spread.** Vinyl Siding and vinyl soffit materials when used in Townhouse construction shall have a Flame Spread Index of 25 or less as tested in accordance with ASTM E-84.

Curt Willis, with the City of Raleigh, recommends the Council adopt this code change.

**Item C – 4 Request by David Smith, Residential Committee, to further amend the proposed 2009 NC Residential Code for One and Two Family Dwellings, Section R302. The proposed amendment is as follows:**

**Delete the 2006 IRC Section R302, including Table R302.1, and replace with the following language from the 2003 IRC with NC Amendments.**

**SECTION R302  
LOCATION ON LOT**

**R302.1 Exterior walls.** Exterior walls with a fire separation distance less than 3 feet (914mm) shall have not less than a one-hour fire-resistive rating with exposure from both sides. Projections shall not extend to a point closer than 2 feet (610 mm) from the line used to determine the fire separation distance.

**Exception:** Detached garages accessory to a dwelling located within 2 feet of a lot line shall be permitted to have roof eave projections not exceeding 4 inches.

Projections extending into the fire separation distance shall have not less than one-hour fire-resistive construction on the underside. The above provisions shall not apply to walls which are perpendicular to the line used to determine the fire separation distance.

**Exceptions:**

1. Tool and storage sheds, playhouses and similar structures exempted from permits by R105.2 are not required to provide wall protection based on location on the lot. Projections beyond the exterior wall shall not extend over the lot line.

2. In Townhouse construction (with 3 or more attached dwellings) the soffit material **beyond the fire separation distance** shall be securely attached to framing members and shall be constructed using either non-combustible soffit material; fire retardant treated soffit material; vinyl soffit installed over ¾ inch wood sheathing or 5/8 inch gypsum board; or aluminum soffit installed over ¾ inch wood sheathing or 5/8 inch gypsum board. Venting requirements shall be provided in both soffit

and underlayments. Vents shall be either nominal 2-inch continuous or equivalent intermittent and shall not exceed the minimum net free air requirements established in section R806.2 by more than 50%. Vents in soffit are not allowed within four feet of fire walls or property lines.

**R302.2 Openings.** Openings shall not be permitted in the exterior wall of a dwelling or accessory building with a fire separation distance less than 3 feet (914 mm). This distance shall be measured perpendicular to the line used to determine the fire separation distance.

**Exceptions:**

1. Openings shall be permitted in walls that are perpendicular to the line used to determine the fire separation distance.
2. Foundation vents installed in compliance with this code are permitted.

**R302.3 Penetrations.** Penetrations located in the exterior wall of a dwelling with a fire separation distance less than 3 feet (914 mm) shall be protected in accordance with Section R317.3.

**Exception:** Penetrations shall be permitted in walls that are perpendicular to the line used to determine the fire separation distance.

**(R302.1 Exception 2 is currently in the Rules process under a separate amendment.)**

Robert Privott, with NC Home Builders Association, recommends the Council adopt the code change.

Matt Siglar, with CP Morgan, recommends the Council adopt the code change.

Frank Blackley, with NC Fire Marshal's Association, along with a large number of audience members, opposed the code change.

Wanda Edwards, with IBHS, opposed the code change.

Mark Massengill, Builder, recommends the Council adopt the code change.

**Part D – Final Adoption**

The following Petitions for Rulemaking have been granted by the Council. Notice of Rulemaking proceedings and Public Hearing has been made. The Public Hearings were held December 10, 2007. The Final Adoption meeting took place on March 11, 2008. The Council will give no further consideration to Petitions that are disapproved. Petitions that are approved will proceed through the Rulemaking process.

**Item D – 1 Request by David Smith, Chairman of the Residential Standing Committee, to amend the 2006 NC Residential Code for One and**

**Two Family Dwellings, Section R311.5.6.3. The proposed amendment is as follows:**

**R311.5.6.3 Handrail grip size.** All required handrails shall be of one of the following types or provide equivalent graspability.

1. Type I. Handrails with a circular cross section shall have an outside diameter of at least  $1\frac{1}{4}$  inches (32 mm) and not greater than 2 inches (51 mm). If the handrail is not circular it shall have a perimeter dimension of at least 4 inches (102 mm) and not greater than  $6\frac{1}{4}$  inches (160 mm) with a maximum cross section of dimension of  $2\frac{1}{4}$  inches (57 mm).
2. Type II. Handrails with a perimeter greater than  $6\frac{1}{4}$  inches (160 mm) shall provide a graspable finger recess area on both sides of the profile. The finger recess shall begin within a distance of  $\frac{3}{4}$  inch (19 mm) measured vertically from the tallest portion of the profile and achieve a depth of at least  $\frac{5}{16}$  inch (8 mm) within  $\frac{7}{8}$  inch (22 mm) below the widest portion of the profile. This required depth shall continue for at least  $\frac{3}{8}$  inch (10 mm) to a level that is not less than  $1\frac{3}{4}$  inches (45 mm) below the tallest portion of the profile. The minimum width of the handrail above the recess shall be  $1\frac{1}{4}$  inches (32 mm) to a maximum of  $2\frac{3}{4}$  inches (70 mm). Edges shall have a minimum radius of 0.01 inch (0.25 mm).

**Exception:** Exterior handrails (garages and areas exposed to the weather) shall not be more than 3-1/2 inches in cross-section dimension.

Motion – David Smith/Second – Mack Nixon/Passed – The motion was passed unanimously.

**Item D – 2 Request by David Smith, Chairman of the Residential Standing Committee, to amend the 2006 NC Residential Code for One and Two Family Dwellings, Section R302.1. The proposed amendment is as follows:**

**R302.1 Exterior walls.** Exterior walls with a fire separation distance less than 3 feet (914 mm) shall have not less than a one-hour fire-resistive rating with exposure from both sides. Projections shall not extend to a point closer than 2 feet (610 mm) from the line used to determine the fire separation distance.

**Exception:** Detached garages accessory to a dwelling located within 2 feet of a lot line shall be permitted to have roof eave projections not exceeding 4 inches.

Projections extending into the fire separation distance shall have not less than one-hour fire-resistive construction on the underside. The above provisions shall not apply to walls which are perpendicular to the line used to determine the fire separation distance.

**Exceptions:**

1. Tool and storage sheds, playhouses and similar structures exempted from permits by Chapter 1 are not required to

provide wall protection based on location on the lot. Projections beyond the exterior wall shall not extend over the lot line.

2. In Townhouse construction (with 3 or more attached dwellings) the soffit material shall be securely attached to framing members and shall be constructed using either non-combustible soffit material, fire retardant treated soffit material, vinyl soffit installed over ¾ inch wood sheathing or 5/8 inch gypsum board, or aluminum soffit installed over ¾ inch wood sheathing or 5/8 inch gypsum board. Venting requirements shall be provided in both soffit and underlayments. Vents shall be either nominal 2-inch continuous or intermittent and shall not exceed the minimum net free air requirements established in section R806.2 by more than 50%. Vents in soffit are not allowed within four feet of fire walls or property lines.

Motion – Butch Simmons/Second – David Smith/Passed – The motion was passed unanimously.

**Item D – 3 Request by the Staff of the NC Department of Insurance to adopt the following codes with the NC Amendments:**

- A. 2006 International Building Code, with 2009 NC Amendments – All Accessibility requirements are included in Chapter 11 and the referenced ANSI A117.1 Standard.

Motion – John Hitch/Second – Butch Simmons/Passed – The motion was passed unanimously.

- B. 2006 International Energy Conservation Code, with 2009 NC Amendments

Motion – Barry Maness/Second – Alan Perdue/Passed – The motion was passed unanimously.

- C. 2006 International Fire Code, with 2009 NC Amendments

Motion – Alan Perdue/Second – Butch Simmons/Passed – The motion was passed unanimously.

- D. 2006 International Fuel Gas Code, with 2009 NC Amendments

Motion – Ralph Euchner/Second – Barry Maness/Passed – The motion was passed unanimously.

- E. 2006 International Mechanical Code, with 2009 NC Amendments

Motion – Al Bass/Second – Barry Maness/Passed – The motion was passed unanimously.

F. 2006 International Plumbing Code, with 2009 NC Amendments

Motion – Al Bass/Second – Barry Maness/Passed – The motion was passed unanimously.

G. 2006 International Residential Code, with 2009 NC Amendments

Motion – David Smith/Second – Barry Maness/Passed – The motion to adopt the 2006 IRC with 2009 NC amendments retaining Section R302 from the 2006 Residential Code was passed unanimously.

H. 2008 National Electrical Code, with 2008 NC Amendments

- Kim Reitterer reported the Ad Hoc and Standing Committee recommendations to the Council. The combined report was presented for a separated vote on the following items.

Motion/Second/Passed – The motion to adopt Article 10 of the 2008 NC Electrical Code amendment package with the exception of Article 10.10 was passed unanimously.

Motion/Second/Passed – The motion to amend NEC Article 334.15 (delete “and crawl spaces”) was passed unanimously.

Motion/Second/Passed – The motion to delay the effective date of weather-resistant type receptacles in NEC Article 406.8(A) and (B) until January 1, 2009 was passed unanimously.

Motion/Second/Passed – The motion to adopt NEC Article 406.11 without amendment was passed unanimously.

Motion/Second/Passed – The motion to adopt NEC Article 680.26(C) without amendment was passed unanimously.

Motion – Kim Reitterer/Second – Alan Perdue/Passed – The motion to delay the effective date of AFCI receptacles in NEC Article 210.12(C) until January 1, 2009 was passed 8:6.

Motion/Second/Passed – The motion to retain 2005 NEC Article 90.2(B) (5) (b) was passed unanimously.

Motion – Kim Reitterer/Second – Ed Moore/ Passed – The motion to adopt the 2008 NEC as amended was passed unanimously.

The proposed effective date for the 2008 NC Electrical Code is **June 1, 2008**.

The proposed effective date for the 2009 NC State Building Codes is **January 1, 2009**.

A transition period for the 2006 NC State Building Codes will be recognized until **June 30, 2009**.

**Item D – 4 Request by John Hitch, Chairman of the General Construction Standing Committee, to amend the 2006 International Building Code, Table 1017.1 in conjunction with Item 3A above. The Council granted a petition on 9/11/07 to add the following Footnote “f” to Table 1017.1, to “Occupancy B”, unsprinklered. The proposed amendment is as follows:**

**Table 1017.1 Corridor Fire-Resistance Rating.**

f. Exit access corridors are not required to be rated on any single tenant floor or in any single tenant space, when 1-hour rated tenant demising walls are provided between all tenant spaces and 1-hour rated floor/ceiling assemblies are provided in multi-story buildings.

Motion – Butch Simmons/Second – Bob Ruffner/Passed – The petition was passed unanimously.

**Part E – Reports**

**Chairman’s Report**

- Dan Tingen announced that Butch Simmons is seeking a position on the International Code Council Board of Directors. Mr. Tingen passed out a letter to the Council members, asking them to approve, that endorses Mr. Simmons for the Board seat on the ICC.

Motion to adopt the letter of endorsement – John Hitch/Second – Mack Nixon/The letter was adopted unanimously.

- The Building Code Council Chair was charged to appoint two members to the Hazardous Materials Facilities Task Force. Mr. Tingen asked John Hitch and Butch Simmons to serve on the Force. They both accepted and Mr. Tingen said he would make the appointments and forward the information to the appropriate parties.

**Ad Hoc Committee Reports**

- Al Bass said the Rainwater Committee formed to look into Rainwater Recycling. They met and came up with Appendix C-1. The Plumbing Committee met and is ready to submit for final adoption.

- Al Bass gave a report on Hot Water Piping. It was recommended to file the report to the Legislature, which they requested.

**Standing Committee Reports**

- Mechanical Committee (Partial) – 1/11/08 – Dan Tingen asked that the issue of Rainwater Recycling be sent back to the Mechanical Committee to make the

proper code text reference. He asked that they hold for Public Hearing at the next BCC meeting.

- David Smith gave a report on the Residential Standing Committee. They met on February 12, 2008 and discussed several issues. David thanked Alan Perdue and others for their presentation on Residential Sprinklers.

- Butch Simmons reported that representatives from Duke Energy met with DOI staff, the Building Code Committee and staff from Charlotte-Mecklenburg on March 10, 2008.

### **Staff Reports**

- Chris Noles reported that staff was asked to update the Joint Emergency Management and Disaster Preparation Committee, to give an update on the Windborne Debris issue.

- Chris Noles announced that the next Building Code Council meeting will be at the NC Department of Insurance, OSFM.

- Chris Noles reported that the International World Burn Conference will be meeting in October here in Raleigh.

- Dan Tingen asked the Council if they would authorize the Chair to work with Staff to develop a letter to the ICC to move forward with printing the Commentaries.

Motion/Second/Passed – The motion was passed unanimously.

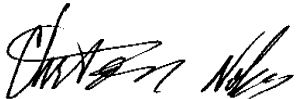
### **Public Comments**

There were no additional comments from the public.

### **Part F – Appeals**

No appeals were heard at this meeting.

Sincerely,



Christian Noles, P.E.  
Secretary, NC Building Code Council