

# North Carolina Building Code Council

Staffed by the NC Department of Insurance

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**Christian Noles, PE**, Secretary

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## Building Code Council

### Chairman:

Dan Tingen -11  
(Home Builder)

May 5, 2008

### Vice Chairman:

John Hitch, AIA -10  
(Architect)

Dan Tingen  
Tingen Construction Company  
8411 Garvey Drive/#101  
Raleigh, NC 27616

### Members:

J. Albert Bass, Jr., PE -  
09  
(Mechanical Engineer)

RE: Agenda for the June 9 – 10, 2008 NC Building Code Council Meeting.

Cynthia M. Browning - 11  
(Electrical Engineer)

Mr. Tingen:

Ralph Euchner - 13  
(Gas Industry)

This is officially to notify you and other interested parties of a regularly scheduled meeting of the NC Building Code Council. The June NC Building Code Council meeting will be held at 322 Chapanoke Road, Raleigh, in the downstairs classroom. Persons requiring auxiliary services should notify the Council at least ten business days prior to the meeting.

Steve L. Knight -09  
(Structural Engineer)

Barry J. Maness -07  
(Mechanical Contractor)

Ed Moore - 13  
(Electrical Contractor)

1. The Work Session will begin at 9:00AM on Monday, June 9, 2008 and is open to the public on a noncontributing basis.

Jack F. Neel -10  
(Municipal-Gov't Rep)

2. The Public Hearing will begin at 1:00PM on Monday, June 9, 2008. The Council will receive comments for the items marked as "C" at this time. At the close of the hearing, committees may meet.

Mack Nixon -10  
(County Gov't Rep)

3. The Residential Standing Committee will meet at the close of the Public Hearing in the upstairs conference room.

Alan W. Perdue -09  
(Fire Services)

4. The NC Building Code Council meeting will begin at 9:00AM on Tuesday, June 10, 2008. Appeals, if any, will be heard at the close of the meeting.

Kim Reitterer - 13  
(Electrical Engineer)

Robert F. Ruffner, Jr. -09  
(General Contractor)

Walter L. Simmons -09  
(Building Inspector)

David L. Smith -10  
(Coastal Residential Contractor)

Tom Turner, FAIA -10  
(Architect)

## **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.**

**Item A – 2 Approval of minutes of the March 11, 2008 NC Building Code Council Meeting.**

**Item A – 3 Staff has reviewed and approved a request by the Village of Bald Head Island to modify smoke detection system requirements in its local Fire Code by Ordinance. Council action is not required on this item.**

**Item A – 4 Rules Review Commission meeting report – (May 15, 2008)**

**Item A – 5 Public Comments**

## **Part B – New Petitions for Rulemaking**

**Item B – 1 Request by David E. Gall, Architect, P.A., to amend the Chapter 4 and Chapter 9 of Volume I of the NC Building Code. The proposed amendment is as follows:**

**Amend Chapter 4 in Volume I of the NC Building Code to add a new Section 422 as follows:**

**422.1. Existing A-2 and A-3 Occupancies shall be permitted to provide facilities for temporary overflow emergency shelters for the homeless provided that all of the following conditions are met and approved by the local code official and fire marshal:**

**.1 The total number of homeless Occupants is limited to 20 individuals who are ambulatory. The homeless Occupants must be 18 years of age or older.**

**.2 The building used for the temporary overflow emergency shelter must be of Type I, II, or III construction.**

**.3 The temporary overflow emergency shelter must be staffed by a minimum of two individuals of 21 years of age or older trained in accordance with Chapter 4 of the NC Fire Code and at least one trained individual shall be awake to monitor the sleeping room and restrooms throughout the time the facility is occupied by the homeless.**

**.4 Functioning smoke detection and a local fire alarm system per 907.2.8 shall be provided throughout the sleeping room and exit access corridors and stairs of the temporary overflow emergency shelter.**

**.5 There shall be a minimum of two separate code compliant means of egress serving the temporary overflow emergency shelter. An evacuation route approved by the local code official and fire marshal shall be posted and be in compliance with Sections 404, 406, and 408 of the NC Fire Code.**

.6 There shall be no lockable doors between sleeping rooms and required exits.

.7 The temporary overflow emergency shelter sleeping room and exit access corridors and stairs shall have night-lighting and emergency lighting with back-up power.

.8 No fire protection sprinkler system is required per 903.2.7, Exception #2.

.9 Heating, cooling, and ventilation must be provided by equipment installed and approved for such use. No space heaters are permitted.

.10 There must be an adequate number of fire extinguishers to serve the temporary overflow emergency shelter as determined by the local fire marshal. Travel distance to an approved fire extinguisher shall not exceed 50 feet. Minimum rating of extinguishers shall be 3A40BC.

.11 No smoking is permitted in the temporary overflow emergency shelter.

.12 Building Owner must submit documentation illustrating that the fire alarm system is approved and that all emergency batteries have been tested and are operational.

.13 Temporary overflow emergency shelters must be approved by the local code official for Occupancy by issuance of an approved Occupancy Permit. Drawings of the temporary overflow emergency shelter sealed by a NC licensed architect or engineer must be provided for local code official review and approval.

.14 Compliance with NC Accessibility code for temporary overflow emergency shelters is not required provided that the local jurisdiction has other shelter facilities that are accessible by the disabled.

.15 Occupancy of a temporary overflow emergency shelter shall be for a maximum of 150 calendar days within any 365 day time span.

**Amend Chapter 9 in Volume I as follows:**

**903.2.7:** Exception #2: an automatic sprinkler system is not required in Group R-1 for temporary overflow emergency shelters per 422.1.

**Item B – 2 Request by Michael D. Crotts, City of Morganton, to amend the 2006 NC Building Code by adding a new Section 422. The proposed amendment is as follows:**

**422.1 Classification.** Existing Church Buildings (places of worship) to be used as Temporary Homeless Shelters.  
R-1 use in an A-3 occupancy.

**422.1.1** Fire Extinguishers shall be installed in accordance with the North Carolina Fire Prevention Code.

**422.2** Non-sprinklered buildings to be occupied for Temporary Homeless Shelters must meet all the following:

1. Shelters would be limited to a maximum of 20 homeless persons.

2. The temporary shelters would be for adults only, no children under the age of 16 years.
3. The buildings would be a minimum of Type I, II, or III, construction.
4. The temporary shelters would have to be staffed by adults (21 years or older).
5. Each shelter would have a minimum of 2 staff persons 1 of which would be awake at all times the shelter is occupied to provide a fire watch. There would also be a posted evacuation route approved by the Fire Official. These facilities would be non-smoking.
6. Shelters would be required to acquire a building permit and be inspected by the Building and Fire Official for egress and safety.
7. Temporary shelters would be allowed only for 120 days after approval and be renewable no more than 2 concurrent permits in a calendar year.

**422.3** No requirements currently exist in the North Carolina Accessibility Code Volume I-C for Emergency Shelters. The U.S. Department of Justice ADA Checklist for Emergency Shelters document may be used for Accessibility Guidelines.

**Item B – 3 Request by Michael D. Crotts, City of Morganton, to amend the 2006 Fire Code, Section 903.2. The proposed amendment is as follows:**

**903.2.7 Group R.** An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

**Exceptions:**

1. An automatic sprinkler system is not required in Group R-3 and R-4 adult and child day care facilities.
2. Temporary Homeless Shelters.  
See Section 422

**Item B – 4 Request by Kirk Aten, with Mecklenburg County Code Enforcement, to amend the NC Accessibility Code, Chapter 11. The proposed amendment is as follows:**

**1104.3.2 Press boxes:** ~~An accessible route shall not be required to a press box unless the press box is part of a privately owned facility of three or more stories in height and a minimum of one of those stories has an area of 3,000 gross square feet or more.~~

**1104.3.2 Press boxes.** Press boxes in assembly areas shall be on an accessible route.

**Exceptions:**

1. An accessible route shall not be required to press boxes in bleachers that have points of entry at only one level, provided that the aggregate area of all press boxes is 500 square feet (46 m<sup>2</sup>) maximum.

2. An accessible route shall not be required to free-standing press boxes that are elevated above grade 12 feet (3660 mm) minimum provided that the aggregate area of all press boxes is 500 square feet (46 m2) maximum.

**Item B – 5 Request by William Eubanks, New Hanover County Inspections, to amend the 2006 NC Plumbing Code, Section 305.6. The proposed amendment is as follows:**

**305.6 Freezing.**

The top of water pipes, installed below grade outside the building, shall be below the frost line or a minimum of 12 inches below finished grade whichever is greater. Water pipes installed in a wall exposed to the exterior shall be located on the heated side of the wall insulation. Water piping installed in an unconditioned attic or unconditioned utility room shall be insulated with an insulation having a minimum R factor of 6.5 determined at 75 degrees Fahrenheit in accordance with ASTM C-177.

**Add Exception:**

Water Piping installed in attics directly on top of ceiling joists and directly beneath the attic insulation does not need to be insulated with an insulation having a minimum R factor of 6.5. The piping must be covered with a tent of 4 mil. poly to prevent the building insulation from cutting off heat loss through the ceiling reaching the pipe.

**Item B – 6 Request by Don Brown, PE, with Stewart Engineering, Inc., to amend the 2006 NC Building Code. The proposed amendment is as follows:**

Replacement or allowed substitution of the 2002 US Seismic Hazard Maps (Figures 1615-1 and -2 in Chapter 16), which are currently contained as a NC adoption in the NC State Building Code (NCSBC), with the newly updated 2008 US Seismic Hazard Maps. Both maps are products of the US Geologic Survey (USGS).

**Item B – 7 Request by Jeff Griffin, Mecklenburg County Government, to amend the 2006 NC Residential Code. The proposed amendment is as follows:**

Complete revision on Appendix M Wood Decks.

**Item B – 8 Other Petitions for Rulemaking.**

**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 will be held June 9, 2008 and the Final Adoption meeting may take place on or after September 9, 2008.

**Item C – 1 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.

**Item C – 2 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 1/2~~ 3 inches (~~42mm~~ 76mm) above the surface of the roof.

**Item C – 3 Request by Armin J. Wallner, Catawba County Government, to amend the 2006 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)

**Item C – 4 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)

## 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 March 10, 2008. The Final Adoption meeting will take place on June 10, 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 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.

**Item D – 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.

**Item D – 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 ¾ inch wood sheathing of 5/8 inch gypsum board, or aluminum soffit installed over ¾ 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.

**Item D – 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 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.

**(Note: Section R302 from the 2006 NC Residential Code was adopted on March 11, 2008 as part of the 2009 NC Residential Code. Section R302.1 Exception 2 was also adopted on March 11, 2008 under a separate amendment. This item requires no further Council action.)**

**Part E – Reports**

**Chairman’s Report**

**Ad Hoc Committee Reports**

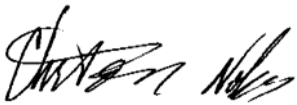
**Standing Committee Reports**

**Staff Reports**

**Public Comments**

**Part F – Appeals**

Sincerely,

A handwritten signature in black ink, appearing to read "Christian Noles". The signature is written in a cursive, somewhat stylized font.

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