

**Minutes of the Building Code Council  
March 9, 2004  
Atlantic Beach, North Carolina**

All Council Members were present.

The following are summary minutes. The official minutes of this meeting are recorded on tape. Anyone desiring verbatim tapes or excerpts from these tapes should contact the Engineering Division of the North Carolina Department of Insurance for information on reproduction costs.

**Executive Order 1 – Conflicts of Interest**

Chairman Tingen inquired upon any conflicts of interest or appearance of conflicts of interest that existed within the Council. No conflicts of interest were noted.

Chairman Tingen asked Tim Bradley, Senior Deputy Commissioner of the Office of the State Fire Marshall, to present the reorganization of the Engineering division of the NC Department of Insurance. Mr. Bradley explained that Wanda Edwards would now be the Deputy Commissioner and Chief Engineer for the Engineering division. Barry Gupton will assume the role of leader of the Code Services Section and Secretary of the Building Code Council. Chairman Tingen applauded the efforts of Mr. Bradley and the staff of the Engineering Division of NC Department of Insurance.

**Item 1            Approval of Minutes of the December 9, 2003 Building Code Council Meeting**

Chairman Tingen accepted the minutes of the December 9, 2003 meeting by unanimous consent.

**Item 2            Evaluation of Statement of Economic Interest filed by Mack E. Nixon**

Lee Hauser read to the Council a letter addressed to Governor Easley concerning a statement of economic interest for Mack Nixon. No actual conflicts of interest were found. However, the potential for conflicts of interest do exist.

**Item 3            Request by Jeff Britt of Robeson County for authority to review plans and specifications for buildings as listed in Table 502 of the North Carolina Administration and Enforcement Code**

Brad Lail made a motion to approve this item. Tom Avery seconded the motion of approval. The motion carried.

**Item 4            Request by Alvin T. Rountree of the Town of Kill Devil Hills for a formal clarification regarding how code officials handle permitting and enforcement of moved and relocated residential structures**

Barry Gupton, North Carolina Department of Insurance staff member, approached the Council with clarification regarding this item.

**Item 5 Request by Ken Szymanski of the Apartment Association of North Carolina for clarification and confirmation regarding permitted uses of nonmetallic electrical cabling in buildings**

This item was withdrawn.

**Petitions for Rulemaking**

The following petitions for rule making have been received since the last Council meeting. The Council votes to grant or deny petitions. Petitions that are granted may proceed through the rulemaking process. The Council will give no further consideration to petitions that are denied. Denied petitions may be appealed to the Superior Court. The Council may send any petition to the appropriate committee for review. Committee meetings, if scheduled, will be June 7, 2004. The public hearing for petitions granted will be held on September 13, 2004.

**Item 6 Request by Mark Zack of Corley, Redfoot, Zack, Inc. to revise table 403.1 in the North Carolina Plumbing Code as follows:**

**Table 403.1 – Minimum number of plumbing facilities**

*Footnote #26:*

*26. For health clubs, dance studios, and similar facilities, the number of persons equals the activity floor area divided by ~~30~~ 50 with the female-male ratio 50%-50%. Drinking fountains 1 per 75 persons.*

Al Bass requested that this item be referred to the Plumbing Committee. Mr. Bass also suggested the International Plumbing Code, which includes the North Carolina Plumbing Code amendments, be used as an interim method. Chairman Tingen concurred. Proponent was not in attendance. John Hitch to voted grant this item. The motion carried.

**Item 7 Request by Mark Zack of Corley, Redfoot, Zack, Inc. to revise table 403.1 in the North Carolina Plumbing Code as follows:**

**Table 403.1 – Minimum number of plumbing facilities**

*Footnote #26:*

*26. For health clubs, dance studios, college recreational gymnasiums exclusive of seating areas, and similar facilities, the number of persons equals the activity floor area divided by 30 with the female-male ratio 50%-50%. Drinking fountains 1 per 75 persons.*

Butch Simmons made a motion to grant the petition and to send this item to the Plumbing Committee. John Hitch concurred. Mr. Hitch also moved to accept the International Plumbing

Code table as an alternate source for fixture counts. Lacy Smith of the Guilford County Inspections Department was reluctant to follow this decision, but acquiesced after further explanation was given. Al Bass seconded the motion. The motion was carried.

**Item 8 Request by Bobby L. Joyner, P.E. to add a new section 102.4 Insulation Installation in the North Carolina Energy Code as follows:**

**Section 102.4 Insulation Installation**

**102.4.1 Protection of exposed foundation insulation**

Insulation applied between the insulation 102.4.2 Protection of Crawl Space Framing: Batt Insulation shall be installed in crawl space floor framing such that the bottom of the batt is no less than one (1) inch below the bottom of the timber floor joists and in such a manner that prevents compressing or pinching batts and that promotes uniformity in batt thickness along its length. Insulation batts shall be placed snug against the joists such that there are no burps or open cavities in the sides of the joist. Insulation batts abutting the perimeter band shall be turned up to provide full coverage of the band. Bottom edges of joists shall also be covered with a 1-inch rigid foam insulation board, fiberglass batt, or spray applied insulation. Exposed drop sills/girders shall either be pressure treated or covered with a minimum of one (1) inch thick insulation board or one (1) inch spray applied insulation.

Bobby Joyner of Rocky Mount presented his petition concerning sealed crawl spaces to the Council. Marshall Knight made a motion to deny Mr. Joyner's petition. Tom Turner wished to further discuss the issue. Mr. Knight offered solutions on how to best deal with safety precautions with this item and how to most effectively deal with eliminating moisture in crawl spaces. John Hitch interjected that the Council appeared to be working on new construction rather than existing. Motion to deny the petition was carried.

**Item 9 Request by Bobby L. Joyner, P.E. to revise section 503.3.3.4.2 in the North Carolina Energy Code as follows:**

503.3.3.4.3 Low-Pressure Duct Systems

Low pressure return ducts, located in unheated crawl space, shall be leak tested in accordance with SMACNA HVAC Air Duct Leakage Test Manual with the rate of air leakage not to exceed the maximum rate specified in the standard. All longitudinal and transverse...

Bobby Joyner presented his petition to the Council. Al Bass made a motion to grant the petition and send it to the Mechanical Committee. Motion was seconded by Marshall Knight. Motion carried to have petition sent for review to the joint Energy and Mechanical Committees.

**Item 10 Request by Bobby Joyner, P.E. to add a new section 503.3.3.4.4 Insulation Installation in the North Carolina Energy Code as follows:**

Duct Clearance and Blockage

503.3.3.4.4 Duct Clearances

There shall be a minimum of three (3) inches of clearance between the bottom of timber joists and supply and return rigid trunk ducts. There shall be also a minimum of four (4) inches between the crawl space grade and the bottom of any flexible or rigid duct.

These clearances also apply to any mechanical equipment placed in the crawl space duct.

503.3.3.4.5 Crawl space blockage by ducts

Placement of supply and return ducts shall in no way prohibit, isolate, restrict, or otherwise block access to any area of the crawl space unless other means of man way access is provided to an area proposed to be isolated by a cut off. A minimum access area/opening of 18" high by 24" wide shall be required to all areas of the crawl space. Access shall not be provided by excavating below the duct into the existing crawl space grade unless the excavated depression can be positively drained or piped to prevent pooling of water in the depression.

Bobby Joyner presented his petition regarding duct clearance to the Council. Marshall Knight addressed the complicated nature of this item; he stated crawl spaces are constructed "the only way they can be done." John Wiggins declared the issue to be of a mechanical nature and not an energy code issue. Chairman Tingen questioned the new methods that are practiced to deter the accumulation of moisture in crawl spaces. Mack Nixon questioned Mr. Joyner about his knowledge of these problems occurring in newer homes (i.e. five years old or newer). Mr. Joyner responded to Mr. Nixon saying that the newer homes were developing the same problems. Marshall Knight made a motion to deny Mr. Joyner's petition. The motion was seconded by Barry Maness. The motion carried.

**Item 11 Request by Bobby L. Joyner, P.E. to add a new section R1003.2.1 in the North Carolina Residential Code as follows:**

R1003.2.1 Unbalanced loading of footings

Where the footing is extended towards the interior for the purpose of supporting a masonry hearth, the footing shall be extended an equal distance on the backside (exterior) of the chimney and the footing constructed of reinforced concrete. The footing shall have a minimum thickness of 12 inches with a minimum of #5 reinforcing bars spaced six (6) inches on center. The center of the bars shall be placed uniformly 3 ½ inches off the footing sub grade and laid perpendicular to the home's perimeter wall footing for the (parallel to the home's perimeter wall footing) spaced 12 inches on center. If the footing projection extends more than 4 feet beyond the face of the chimney or the chimney height exceeds 35 feet, the footing shall be designed by a NC Licensed Architect or Professional Engineer.

Bobby Joyner addressed the Council about the issue of exterior chimney movement. Mr. Joyner expressed a desire to have more security in the buildings to keep the chimneys from moving unnecessarily. Marshall Knight requested Barry Gupton, a North Carolina Department of Insurance staff member, to address similar issues that have been brought up in the past. Mr. Gupton discussed complaints that were received possibly 12-15 years ago. After Council briefly discussed the issue, Mr. Knight made a motion to deny Mr. Joyner's petition. The motion was seconded and the motion was carried.

**Item 12 Request by Bobby L. Joyner, P.E. to add a new section R1003.2.1 in the North Carolina Residential Code as follows:**

**R403.1.6 (in part)**

*The wood sole plate at exterior walls on monolithic slabs and wood sill plates shall be anchored to the foundation with anchor bolts spaced a maximum of 6 feet on center and not more than 12 inches from the corners. ~~Anchor bolts shall also be located within 12 inches from the ends of each plate section.~~ In Seismic Design Categories D1 and D2, anchor bolts...*

After a brief discussion of the item, Marshall Knight made a motion to grant the petition. Tom Turner seconded the motion. The motion carried.

**Item 13 Request by Residential/Structural Committee to add the following to table R602.10.3 of the North Carolina Residential Code:**

Footnote:

c Braced wall panels, assembled in accordance with Section R602.10.3, Method 3, with wood structural panel sheathing on both sides, may be used to reduce the panel lengths shown by 50%.

Marshall Knight made a motion to grant the petition and have a memo highlighting this issue sent to the inspections departments. The motion was seconded and the motion carried.

**Item 14 Request by Holly Lemieux to a new section 7.1.2.1 of the North Carolina Accessibility Code as follows:**

7.1.2.1 An accessible entrance to a newly constructed building of public accommodations offering goods and/or services to the public shall be provided with an automated door. A newly constructed building with two thousand five hundred (2,500) square feet of space or less would be exempt from providing an automatic door.

Holly Lemieux of Waynesville presented her petition to the Council. She offered the testimony of a witness, David Plemmons, as part of her petition. Mr. Plemmons discussed the lack of independence and access (only 5 out of 150 businesses offer him easy access) that he has in his hometown of Waynesville. Chairman Tingen explained that the issue would be dealt with in the next code cycle. Leslie Young of NC State Uniform Design also spoke on the behalf of Ms. Lemieux. Ms. Young offered thanks to the Council for adhering to the ADA and presented the Council with information on costs of automatic and sliding doors. Chairman Tingen explained to Ms. Young that the issue appeared to be of a civil rights nature and that it would be dealt with in an avenue of the Federal Government. Bob Ruffner made a motion to deny the petition. Barry Maness seconded the motion. A discussion ensued about what the 2006 ADA would entail. It was decided that the 2002 Volume 1C would be used until changes were officially made. The petition was denied.

**Item 14A Additional petition for rule making**

Kenneth Butler, a representative for Property Management at NC State University, presented a petition to the Council regarding auxiliary power hook-ups. Mr. Butler was advised that his petition would be deferred to the Electrical Committee. John Hitch expressed a desire to hear further from Mr. Butler. Mr. Butler questioned why something could be accepted by the NC

Department of Insurance and not the inspectors in NC. Lon Culbertson inquired upon the history of the power hook-ups and Marshall Knight inquired upon the approval for the buildings the power sources were located in. Mr. Butler confirmed that the plans for the building had been sent to the NC Department of Insurance. After a lengthy discussion addressing undetected violations, code interpretations, and inspections, Ron Chilton, NCDOT Electrical Inspector, discussed email correspondences between himself and Mr. Butler, the planning reviews done at NCDOT, and jobsite inspections. Mr. Culbertson had an inquiry about the lack of reviews of electrical systems at NCDOT. Mr. Chilton said NCDOT had reviewed the plans once for electrical and that projects that are valued at \$2,000,000.00 or less are not reviewed by State Construction. After another lengthy discussion, Tim Reynold interjected that he felt a consensus would not and could not be reached during the meeting. Mr. Culbertson stated that there should either be a code change or an appeal of authority of jurisdiction. Chairman Tingen suggested the petition be referred to the Electrical Committee. Brad Lail made a motion to grant the petition and send it to the Committee. Tom Turner seconded the motion. The motion carried.

## **Item 15      Committee Reports**

### **Building Code Council Committees**

#### **1. Administration Committee**

Dan Tingen reported that the committee has met on two previous occasions for discussion on codes. He also stated that the reorganization of the Engineering Division at NCDOT will have positive influence on code changes.

#### **2. Joint Residential and Structural Committee Meeting**

Marshall Knight presented the summary of the meeting held on February 11, 2004. Commentaries for codes and spray foam insulation in attics were discussed. Discussions involving vapor barriers were requested to be deferred until the committee meeting in June, 2004.

#### **3. Mechanical Committee**

Al Bass presented the summary of the meeting. Mr. Bass presented the Council with an alternate wording for 603.1.1 to read as follows:

*603.1.1 Nothing in this section shall be deemed to preclude the use, within a conditioned space, of a duct system that combines the functions of air transport and air diffusion provided that the materials used in the said duct system have a fire spread/smoke developed rating not greater than 25/50.*

Marshall Knight made a motion stating the wording of the proposed version of 603.1.1 was different from the original International version, but had the same intent and that the new wording should continue through the rule making process. Barry Maness seconded the motion. The motion carried.

#### **4. Electrical Committee**

Lon Culbertson reported that the committee discussed the language of the code dealing with temporary power and how it is used and interpreted by code officials.

## **Ad Hoc Committees**

### **1. International Existing Building Committee**

John Hitch reported on discussions regarding Existing buildings. He stated that the committee is making progress and will continue to move forward.

## **Commentary Committees**

### **1. Plumbing Code Commentary**

Al Bass stated that all has been completed with this commentary.

### **2. Mechanical Code Commentary**

Mr. Bass reported that all has been completed with this commentary, as well.

## **Item 16 Other Items**

1. Questions were raised about cladding systems and the problems that exist with them. The Council opted not to act on this.
2. Tim Morrison, a member of the NCDOT staff, presented information on treated lumber and the chemicals used to treat it that do not contain arsenic. He also discussed proper fasteners for lumber. Chairman Tingen requested to send this problem to the Residential Committee. Marshall Knight stated the safety concerns for residents due to the fact that homes could easily collapse. John Wiggins of the Under Writer's Laboratories suggested that seminars are available on the subject.
3. Billy Hinton, NCDOT staff member, addressed the Council about the numerous letters sent to the Department of Energy that have received no response. It was declared that the issue appeared to be political in nature and was not directly associated with the code.
4. Vaughn Wicker, an ICC representative, approached the Council concerning the 2003 Commentaries. He stated that the following were available (some only in draft form): International Plumbing, Building (Chapters 1-15 and Chapters 16 – end of book), Fire, and Fuel Gas. Marshall Knight proposed to give NCDOT more time to adequately address the commentaries. Chairman Tingen discussed the improvement of the process for a two day turnaround for uniform, statewide interpretations. In dealing with the AIA, NCDOT will prepare email notifications. All changes made should be dealt with using the methods utilized by ICC. Tom Turner and John Hitch will apply to be appointed to an ICC committee and act as representatives for the Building Code Council.

Chairman Tingen stated that there was no further business. The meeting was adjourned.

Sincerely,

Lee Hauser, PE  
Acting Secretary