Minutes of the North Carolina Building Code Council
December 15, 2015
Raleigh, NC

All members of the North Carolina Building Code Council were present for the Council Meeting with the exception of Paula Strickland, Lon McSwain and Mack Paul.

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 **Tuesday, March 15, 2016**. The location will be announced 30 days before the meeting.

Part A – Administrative Items

Item A – 1 Ethics Statement: 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 September 15, 2015 NC Building Code Council Meeting.

A **motion** to accept the September 15th meeting minutes was made by David Smith, **seconded**, and **approved** with modifications.

Item A – 3 City of New Bern Fire Code Ordinance.

Motion – Alan Perdue/**Second** – Leah Barrett/**Approved**. The request was approved.

Item A – 4 Town of Oak Island Fire Code Ordinance.

Motion – Alan Perdue/**Second** – Leah Barrett/**Approved**. The request was approved.

Item A – 5 Rules Review Commission Meeting Report

Barry Gupton reported that all D-items from the September 15, 2015 BCC meeting were approved with the Rules Review Commission.

Item A – 7 Public Comments

Jonathan Leonard, representing the NC Fire Marshal's Association, asked if there had been an update from the Governor's Office on reappointments to the NC BCC.

Part B – New Petitions for Rulemaking
The following Petitions for Rulemaking have been received since the last Council meeting. The Council will vote either to deny or grant these Petitions. The Council will give no further consideration to Petitions that are denied. Petitions that are granted may proceed through the Rulemaking process. The Council may send any Petition to the appropriate committee. The hearing will take place during or after the March 2016 meeting.

Item B – 1 Request by Darrell Johnson, representing himself, to amend the 2012 NC Plumbing Code, Section 416.5. The proposed amendment is as follows:

416.5. Tempered water for public hand-washing facilities. ~~Deleted.~~ When hot water is provided to a public hand-washing facility, such water shall be tempered water delivered through an approved water-temperature limiting device that conforms to ASSE 1070 or CSA B125.3.

Motion – David Smith/**Second** – Steve Knight/**Approved**. The request was granted and sent to the Plumbing Committee for review.

Item B – 2 Request by Rick Baxley, P.E., representing Brick Industry Association (BIA), to amend the 2012 NC Residential Code, Section R703.7.4.2. The proposed amendment is as follows:

R703.7.4.2 Air space. The veneer shall be separated from the sheathing by an air space of a minimum of a nominal 1 inch (25 mm) but not more than 4 ½ inches (114 mm). An air space that provides drainage and contains mortar from construction shall be permitted.

Motion – David Smith/**Second** – Ralph Euchner/**Approved**. The request was granted and was sent to the Residential Committee for review.

Item B – 3 Request by Bryan D. Robinson/Leon Skinner, representing the City of Raleigh Development Services, to amend the 2012 NC Building Code, Section 1109.2.1. The proposed amendment is as follows:

1109.2.1 Family or assisted-use toilet and bathing rooms. In assembly and mercantile occupancies, an *accessible* family or assisted-use toilet room shall be provided where an aggregate of six or more female water closets is required. In buildings of mixed occupancy, only those water closets required for the assembly or mercantile occupancy shall be used to determine the family or assisted-use toilet room requirement. In recreational facilities where separate-sex bathing rooms are provided, an *accessible* family or assisted-use bathing room shall be provided. Fixtures located within family or assisted-use toilet and bathing rooms shall be included in determining the number of fixtures provided in an occupancy.

Exception:
1. Where each separate-sex bathing room has only one shower or bathtub fixture, a family or assisted-use bathing room is not required.
2. In an Assembly occupancy that meets the definition of a nightclub in 902.1, the family or assisted-use toilet room is not required.

Motion – Leah Barrett/**Second** – Tim Fowler/**Approved**. The request was granted and sent to the Building Committee for review.

Item B – 4 Request by Bill Collins, representing Baker Residential, to amend the 2012 NC Residential Code, Section R905.10. The proposed amendment is as follows:

R905.10 Metal roof panels. The installation of metal roof panels shall comply with the provisions of this section. Ridge/Hip Flashing and sealant shall be installed per the manufacturer's instructions.

Motion – David Smith/**Second**/**Approved**. The request was granted and was sent to the Residential Committee for review.

Item B – 5 Request by Clint Latham, representing the NC Plumbing Inspector's Association, to amend the 2012 NC Plumbing Code, Section 202. The proposed amendment is as follows:

~~**INDIRECT WASTE RECEPTOR.** A plumbing fixture designed to collect and dispose of liquid waste from other plumbing fixtures, plumbing equipment or appliances that are required to discharge to the drainage system through an air gap. The following types of fixtures fall within the classification of indirect liquid waste receptors: floor sinks, mop receptors, service sinks and standpipe drains with integral air gaps.~~

WASTE RECEPTOR. A floor sink, standpipe, hub drain or a floor drain that receives the discharge of one or more indirect waste pipes.

Motion – Ralph Euchner/**Second** – David Smith/**Approved**. The request was granted and was sent to the Plumbing Committee for review.

Item B – 6 Request by Clint Latham, representing the NC Plumbing Inspector's Association, to amend the 2012 NC Plumbing Code, Section 802.3. The proposed amendment is as follows:

802.3 Waste receptors. ~~Every waste receptor shall be of an approved type. A removable strainer or basket shall cover the waste outlet of waste receptors. Waste receptors shall be installed in ventilated spaces. Waste receptors shall not be installed in bathrooms or toilet rooms or in any inaccessible or unventilated space such as a closet or storeroom. Ready access shall be provided to waste receptors.~~ For other than hub drains that receive only clear-water waste and standpipes, a removable strainer or basket shall cover the waste outlet of waste receptors. Waste receptors shall not be installed in concealed spaces. Waste receptors shall not be installed in plenums, crawl spaces, attics, interstitial spaces above ceilings and below floors. Ready *access* shall be provided to waste receptors.

Motion – Al Bass/**Second** – Tim Fowler/**Approved**. The request was granted and was sent to the Plumbing Committee for review.

Item B – 7 Request by Clint Latham, representing the NC Plumbing Inspector's Association, to amend the 2012 NC Plumbing Code, Section 802.3.2. The proposed amendment is as follows:

802.3.2 ~~Open hub waste receptors.~~ Hub drains. A hub drain ~~Waste receptors~~ shall be permitted in the form of a hub or pipe extending not less than 1 inch (25.4 mm) above a water-impervious floor ~~and are not required to have a strainer~~.

Motion – Al Bass/**Second** – Ralph Euchner/**Approved**. The request was granted and was sent to the Plumbing Committee for review.

Item B – 8 Request by Tim Fowler, NC Building Code Council, to amend the 2015 NEC, Section 338.10 (B)(4)(a). The proposed amendment is as follows:

Remove existing code language:

(4) Installation Methods for Branch Circuits and Feeders.

(a) *Interior Installations.* ~~In addition to the provisions of this article, Type SE service entrance cable used for interior wiring shall comply with the installation requirements of Part II of Article 334, excluding 334.80.~~

~~Where installed in thermal insulation the ampacity shall be in accordance with the 60°C (140°F) conductor temperature rating. The maximum conductor temperature rating shall be permitted to be used for ampacity adjustment and correction purposes, if the final derated ampacity does not exceed that for a 60°C (140°F) rated conductor.~~

Add new code language:

(4) Installation Methods for Branch Circuits and Feeders.

(a) *Interior Installations.* In addition to the provisions of this article, Type SE service entrance cable used for interior wiring shall comply with the installation requirements of Part II of Article 334, excluding 334.80.

For Type SE cable with ungrounded conductor sizes 10 AWG and smaller, where installed in thermal insulation, the ampacity shall be in accordance with 60°C (140°F) conductor temperature rating.

Motion – Wade White/**Second** – Leah Barrett/**Approved**. The request was granted and was sent to the Electrical Committee for review.

Item B – 9 Request by Leah Barrett, NC Building Code Council, to amend the 2015 NEC, Section 210 (B)(4)(a). The proposed amendment is as follows:

210.12 (B)

(2) A listed outlet branch-circuit type AFCI located at the first receptacle outlet of the existing branch circuit.

Exception: AFCI protection shall not be required where the extension of the existing conductors is not more than ~~1.8 m (6 ft)~~ 15.24 m (50 ft) and does not include any additional outlets or devices.

Motion/**Second**/**Approved**. The request was granted and was sent to the Electrical Committee for review.

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 December 15, 2015 and the Final Adoption meeting may take place on or after March 15, 2016. The written public comment period expires on April 15, 2016.

Item C – 1 Request by Leon Skinner, representing the NC Existing Building Code Ad Hoc Committee, to amend the 2015 NC Existing Building Code, Section 101. The proposed amendment is as follows:

101.11. Accessibility for detached one- and two-family dwellings and townhouses. In detached one- and two-family dwellings and townhouses, where there are four or more dwelling units or sleeping units in a single structure, the provisions for accessibility of this code for Group R-3 shall apply.

Leon Skinner, representing the NC Existing Building Code Ad Hoc Committee, recommends that the Council adopt this code change.

Item C – 2 Request by Leon Skinner, representing the NC Existing Building Code Ad Hoc Committee, to amend the 2015 NC Existing Building Code, Section 407. The proposed amendment is as follows:

[B] 407.1 Conformance.
No change shall be made in the use or occupancy of any building that would place the building in a different division of the same group of occupancy or in a different group of occupancies, unless such building is made to comply with the requirements of the *International Building Code* for such division or group of occupancy. Subject to the approval of the building official, the use or occupancy of *existing building*s shall be permitted to be changed and the building is allowed to be occupied for purposes in other groups without conforming to all of the requirements of this code for those groups, provided the new or proposed use is ~~of equal or lesser hazard~~ less hazardous, based on ~~Table 407.1~~ life and fire risk, than the existing use.

~~Table 407.1~~
~~Relative Occupancy Hazard~~

~~**Life and Fire Risk Hazard**~~	~~**Occupancy Category**~~
~~1 (highest)~~	~~H-1, H-2, H-3~~
~~2~~	~~A-1, A-2 (w/ nightclub), H-4, F-1, I-3, M, S-1~~
~~3~~	~~A-2 (w/o nightclub), A-3, A-5, B, F-2, I-2, R-1, S-2~~
~~4~~	~~A-4, E, I-1, R-2 greater than two stories in height or greater than 4 dwelling units~~
~~5 (lowest)~~	~~R-2 two stories or less in height and four dwelling units or less, R-3, R-4, U, One- and Two Family Dwellings.~~

Leon Skinner, representing the NC Existing Building Code Ad Hoc Committee, recommends that the Council adopt this code change.

Item C – 3 Request by Barry Gupton, Staff, to advertise the modified amendment to the 2011 NC Electrical Code, Article 300.9. The Rules Review Commission objected to the June 9, 2015 adoption for "failure to comply with the APA." The proposed amendment is as follows:

300.9 Raceways in Wet Locations Above Grade. Where raceways are in wet locations above grade, the interior of these raceways shall be considered to be a wet location. Insulated conductors and cables installed in raceway in wet locations above grade shall comply with 310.10(C).

Exception: The raceway shall not be considered a wet location if:

(1) The section of raceway routed in a wet location above grade does not exceed 1500 mm (5 ft) in length;

(2) Any fittings or conduit bodies are watertight and listed for use in wet locations; and

(3) Raceway is open at its termination point in a dry location.

Ron Chilton, Staff, does not recommend that the Council adopt this code change.

Bryan Holland, representing NEMA, recommends that the Council adopt this code change.

Terry Cromer, representing the Association of Electrical Contractors, recommends that the Council adopt this code change.

Robert Privott, representing the NC Home Builders Associations, recommends that the Council adopt this code change.

Item C – 4 Request by Al Bass, Building Code Council, to amend the 2012 NC Plumbing Code for condensate drains. The proposed amendment is as follows:

307.2.1.1 Condensing furnaces and boilers. Where condensate drains from condensing furnaces or boilers are installed in locations subject to freezing, the condensate drain lines in attics shall be freeze protected in accordance with the manufacturer's recommendations

701.7 Connections. Direct connection of a condensate drain, a steam exhaust blow-off or drip pipe shall not be made with the building drainage system.

715.6 Crawl Spaces. All hub drains or floor drains installed in crawl spaces shall be protected from backflow into the building by a check valve or back-water valve installed in the lateral serving the said hub drain or floor drain.

802.1.5 Non-potable clear-water waste. Where devices and equipment such as process tanks, filters, condensate drains, drips and boilers discharge non-potable water to the building drainage system, the discharge shall be through an indirect waste pipe by means of an air break or air gap.

Robert Privott, representing the NC Home Builders Associations, recommends that the Council adopt this code change.

Clint Latham, representing the NC Plumbing Inspector's Association, is neither for nor against this code change. He recommends that it needs more work within the committee to incorporate other language.

Item C – 5 Public Comment is Solicited from Interested Stakeholders on Large Dwelling Units (Resort and Bed & Breakfast Homes) which are currently being designed and built using the North Carolina State Building Code: Residential Code 2012.

A Public Hearing (Agenda C-Items) will be held at the December 15, 2015 Council Meeting to allow interested stakeholders the ability to be involved in the process and provide valuable information to the Committee in order that they make an informed recommendation to the Council.

Mark Matheny, representing the NC Building Inspector's Association, spoke at the meeting.

Erin Wynia spoke on behalf of the NC League of Municipalities, spoke at the meeting.

Bill Newns, Currituck, spoke at the meeting.

Peter Rascoe, with the Town of Southern Shores, spoke at the meeting.

Duke Geraghty, with the Outer Banks Home Builders Association, spoke at the meeting.

Robert Privott, representing the NC Home Builders Association, spoke at the meeting.

Chris Noles, NCDOI Staff, spoke at the meeting.

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 September 15, 2015. The Final Adoption meeting took place on December 15, 2015. 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 Michael A. Segala, Jr., representing Aquatherm, to amend the 2012 NC Plumbing Code, Section 605.4. The proposed amendment is as follows:

605.4.1. Aquatherm green pipe with blue strip (SDR 11) shall be allowed in the North Carolina Plumbing Code for cold water potable water system applications including inside the building.

[The proponent submitted the following modification to eliminate the proprietary language.**]**

605.4 Water distribution pipe. Water distribution pipe shall conform to NSF 61 and shall conform to one of the standards listed in Table 605.4. ~~All~~ Hot water distribution pipe and tubing shall have a minimum pressure rating of 100 psi (690 kPa) at 180°F (82°C). Cold water distribution pipe and tubing shall have a minimum pressure rating of 160 psi (1100 kPa) at 73.4°F (23°C).

Motion – Ralph Euchner/**Second** – David Smith/**Adopted**. The delayed effective date of this Rule is January 1, 2017.

Item D – 2 Request by Jeff Tiller, Appalachian State University and North Carolina Energy Efficiency Alliance, to amend the 2012 NC Energy and Conservation Code, Table 502.1.2. The proposed amendment is as follows:

Revised U-factor table less American Wood Council items (indicated as "Other proposal" below)

TABLE 502.1.2
BUILDING ENVELOPE REQUIREMENTS OPAQUE ELEMENT, MAXIMUM U-FACTORS

Climate Zone	3		4		5	
	All Other	Group R	All Other	Group R	All Other	Group R
Roofs						
X Insulation entirely above deck	U-0.039	U-0.039	U-0.032	U-0.032	U-0.032	U-0.032
Metal buildings	U-0.041	U-0.041	U-0.037	U-0.037	U-0.037	U-0.037
Attic and other-wood framing	U-0.027	~~U-0.041~~ U-0.027	~~U-0.021~~ U-0.024	~~U-0.021~~ U-0.024	~~U-0.021~~ U-0.024	~~U-0.021~~ U-0.024
Attic and other – steel framing	U-0.035	U-0.035	U-0.029	U-0.029	U-0.029	U-0.029
Walls, Above Grade						
Mass	U-0.123	U-0.104	U-0.104	U-0.090	U-0.090	~~U-0.060~~ U-0.071
Metal building	U-0.094	U-0.072	U-0.060	U-0.050	U-0.050	U-0.050
Metal framed	Other proposal	Other proposal	Other proposal	Other proposal	Other proposal	Other proposal
Wood framed and other	Other proposal	Other proposal	Other proposal	Other proposal	Other proposal	Other proposal
Walls, Below Grade						
Below-grade wall[a]	C-0.119	C-0.119	C-0.119	C-0.092	C-0.119	C-0.092)
Floors						
Mass	U-0.064	U-0.064	U-0.057	U-0.051	U-0.057	U-0.051
Joist / Framing-wood	U-0.033	U-0.033	~~U-0.027~~ U-0.026	~~U-0.027~~ U-0.026	~~U-0.027~~ U-0.026	~~U-0.027~~ U-0.026
Joist / Framing-steel	U-0.032	U-0.032	U-0.032	U-0.032	U-0.032	U-0.032
Slab-on-Grade Floors						
Unheated slabs	F-0.730	F-0.540	F-0.520	F-0.520	F-0.520	F-0.510
Heated slabs	F-0.860	F-0.860	~~F-0.688~~ F-0.843	F-0.688	F-0.688	F-0.688

a. When heated slabs are placed below-grade, below grade walls must meet the *F*-factor requirements for perimeter insulation according to the heated slab-on-grade construction.

Motion – Ralph Euchner/**Second** – David Smith/**Adopted**.

Item D – 3 Request by Wayne Hamilton, representing the NC Fire Service Code Revision Committee, to amend the 2012 NC Fire Code, Section 505.1.1. The proposed amendment is as follows:

505.1.1 Suite/Room identification. Where numerical addresses are posted to identify suites or rooms within buildings, the first digit of the suite or room numbering scheme shall match the floor numerical identification signage.

Motion – Alan Perdue/**Second** – Leah Barrett/**Adopted**. The delayed effective date of this Rule is January 1, 2017.

Item D – 4 Request by Wayne Hamilton, representing the NC Fire Service Code Revision Committee, to amend the 2012 NC Fire Code, Section 902.1. The proposed amendment is as follows:

Section 902 Definitions

Night Club. ~~An establishment meeting all of the following~~ An A-2 occupancy meeting all of the following conditions:

1. ~~Has a posted capacity or occupant load that exceeds one occupant per 15 square foot (1.39m^2) net~~ The aggregate floor area of concentrated use and standing space that is used for dancing and/or viewing of performers exceeds 10 percent of the Group A-2 fire area, excluding adjacent lobby areas ; and

2. Provides live or recorded entertainment by performing artist; and

3. ~~Serves~~ Allows alcoholic beverage~~s~~ consumption.

Motion – Alan Perdue/**Second** – Leah Barrett/**Adopted**. The delayed effective date of this Rule is January 1, 2017.

Item D – 5 Request by Robert Privott, representing the NC Home Builders Association, to amend the 2012 NC Mechanical Code, Section 312.1. The proposed amendment is as follows:

312.1 Load calculations. Heating and cooling system design loads for the purpose of sizing systems, appliances and *equipment* shall be determined in accordance with the procedures described in the ASHRAE/ACCA Standard 183. Alternatively, design loads shall be determined by an *approved* equivalent computation procedure, using the design parameters specified in Chapter 3 of the *International Energy Conservation Code.*

For one- and two-family dwellings and townhouses, heating and cooling equipment shall be sized in accordance with ACCA Manual S based on building loads calculated in accordance with ACCA Manual J, or other approved heating and cooling calculation methodologies.

For permitting, inspections, certificate of compliance or certificate of occupancy, verification of Calculations for HVAC Systems - ACCA Manual D, ACCA Manual J nor ACCA Manual S calculation submittals and review shall not be required

Motion – Ralph Euchner/**Second** – Frankie Meads/**Adopted**. The delayed effective date of this Rule is January 1, 2017.

Item D – 6 Request by Cindy Register, representing the NC Building Code Council, Electrical Committee, to adopt the 2014 NEC with the following amendments.

Proposed North Carolina Amendments to 2014 NEC
Prepared by Electrical Ad-hoc Committee – August 31, 2014

Item 6.1: Retain language from 2011 NEC for 110.26 (E) (2) – No Cost Impact

(2) Outdoor. ~~Outdoor installations shall comply with 110.26(E)(2)(a) and (b).~~
~~(a) *Installation Requirements.*~~ Outdoor electrical equipment shall be installed in suitable enclosures and shall be protected from accidental contact by unauthorized personnel, or by vehicular traffic, or by accidental spillage or leakage from piping systems. The working clearance space shall include the zone described in 110.26(A). No architectural appurtenance or other equipment shall be located in this zone.
~~(b) *Dedicated Equipment Space.* The space equal to the width and depth of the equipment, and extending from grade to a height of 1.8 m (6 ft) above the equipment, shall be dedicated to the electrical installation. No piping or other equipment foreign to the electrical installation shall be located in this zone.~~

Item 6.2: Retain Existing NC Electrical Code Amendment to 210.8(A) (3) – No Cost Impact

210.8 (A) (3) Outdoors
Exception <u>No. 1</u> to (3): Receptacles that are not readily accessible and are supplied by a branch circuit dedicated to electric snow-melting, deicing, or pipeline and vessel heating equipment shall be permitted to be installed in accordance with 426.28 or 427.22, as applicable.

<u>Exception No. 2 to (3): A single outlet receptacle supplied by a dedicated branch circuit which is located and identified for specific use by a sewage lift pump.</u>

Item 6.3: Retain language from 2011 NEC for 210.8(A) (7) – No Cost Impact

210.8(A) (7) Sinks — <u>located in areas other than kitchens</u> where receptacles are installed within 1.8 m (6 ft) of the outside edge of the sink.

Item 6.4: Remove GFCI requirement for kitchen dishwasher branch circuit. This was not a requirement in the 2011 NEC. – No Cost Impact

~~**210.8 (D) Kitchen Dishwasher Branch Circuit.** GFCI protection shall be provided for outlets that supply dishwashers installed in dwelling unit locations.~~

Item 6.5: Retain location requirements from 2011 NEC for AFCI Protection and remove term "readily". – No Cost Impact

210.12 Arc-Fault Circuit-Interrupter Protection. Arc-fault circuit-interrupter protection shall be provided as required in 210.12(A) (B), and (C). The arc-fault circuit interrupter shall be installed in a<u>n</u> ~~readily~~ accessible location.
(A) Dwelling Units. All 120-volt, single-phase, 15- and 20-ampere branch circuits supplying outlets or devices installed in dwelling unit ~~kitchens,~~ family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, ~~laundry areas,~~ or similar rooms or areas shall be protected by any of the means described in 210.12(A)(1) through (6):

(1) A listed combination-type arc-fault circuit interrupter, installed to provide protection of the entire branch circuit

(2) A listed branch/feeder-type AFCI installed at the origin of the branch-circuit in combination with a listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet box on the branch circuit. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the circuit.

(3) A listed supplemental arc protection circuit breaker installed at the origin of the branch circuit in combination with a listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet box on the branch circuit where all of the following conditions are met:
a. The branch-circuit wiring shall be continuous from the branch-circuit overcurrent device to the outlet branch-circuit arc-fault circuit interrupter.
b. The maximum length of the branch-circuit wiring from the branch-circuit overcurrent device to the first outlet shall not exceed 15.2 m (50 ft) for a 14 AWG conductor or 21.3 m (70 ft) for a 12 AWG conductor.
c. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the circuit.

(4) A listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet on the branch circuit in combination with a listed branch-circuit overcurrent protective device where all of the following conditions are met:
a. The branch-circuit wiring shall be continuous from the branch-circuit overcurrent device to the outlet branch-circuit arc-fault circuit interrupter.
b. The maximum length of the branch-circuit wiring from the branch-circuit overcurrent device to the first outlet shall not exceed 15.2 m (50 ft) for a 14 AWG conductor or 21.3 m (70 ft) for a 12 AWG conductor.
c. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the circuit.
d. The combination of the branch-circuit overcurrent device and outlet branch-circuit AFCI shall be identified as meeting the requirements for a system combination–type AFCI and shall be listed as such.

(5) If RMC, IMC, EMT, Type MC, or steel-armored Type AC cables meeting the requirements of 250.118, metal wireways, metal auxiliary gutters, and metal outlet and junction boxes are installed for the portion of the branch circuit between the branch-circuit overcurrent device and the first outlet, it shall be permitted to install a listed outlet branch-circuit type AFCI at the first outlet to provide protection for the remaining portion of the branch circuit.

(6) Where a listed metal or nonmetallic conduit or tubing or Type MC cable is encased in not less than 50 mm (2 in.) of concrete for the portion of the branch circuit between the branch-circuit overcurrent device and the first outlet, it shall be permitted to install a listed outlet branch-circuit type AFCI at the first outlet to provide protection for the remaining portion of the branch circuit.

Exception: Where an individual branch circuit to a fire alarm system installed in accordance with 760.41(B) or 760.121(B) is installed in RMC, IMC, EMT, or steel sheathed cable, Type AC or Type MC, meeting the requirements of 250.118, with metal outlet and junction boxes, AFCI protection shall be permitted to be omitted.

Informational Note No. 1: For information on combination-type and branch/feeder-type arc-fault circuit interrupters, see UL 1699-2011, *Standard for Arc-Fault Circuit Interrupters*. For information on outlet branch circuit type arc-fault circuit interrupters, see UL Subject 1699A, *Outline of Investigation for Outlet Branch Circuit Arc-Fault Circuit-Interrupters*. For information on system combination AFCIs, see UL Subject 1699C, *Outline of Investigation for System Combination Arc-Fault Circuit Interrupters*.

Informational Note No. 2: See 29.6.3(5) of *NFPA 72*-2013, *National Fire Alarm and Signaling Code*, for information related to secondary power-supply requirements for smoke alarms installed in dwelling units.

Informational Note No. 3: See 760.41(B) and 760.121(B) for power-supply requirements for fire alarm systems.

Item 6.6: Remove exception for 6' extension at 210.12 (B). – No Cost Impact

(B) Branch Circuit Extensions or Modifications — Dwelling Units. In any of the areas specified in 210.12(A), where branch-circuit wiring is modified, replaced, or extended, the branch circuit shall be protected by one of the following:

(1) A listed combination-type AFCI located at the origin of the branch circuit

(2) A listed outlet branch-circuit type AFCI located at the first receptacle outlet of the existing branch circuit
Exception: AFCI protection shall not be required where the extension of the existing conductors is not more than 1.8 m (6 ft) and does not include any additional outlets or devices.

Item 6.7: Revise to reflect NC Electrical Code Amendment with January 1, 2015 effective date. - No Cost Impact

210.52 (I) Foyers. Foyers that are not part of a hallway in accordance with 210.52(H) and that have an area that is greater than 5.6 m^2 (60 ft^2) shall have at least one receptacle~~(s) located in each wall space 900 mm (3 ft) or more in width. Doorways, door-side windows that extend to the floor, and similar openings shall not be considered wall space~~.

Item 6.8: Retain Existing NC Electrical Code Amendment to 250.50 – No Cost Impact

250.50 Grounding Electrode System. All grounding electrodes as described in 250.52(A)(1) through (A)(7) that are available ~~present~~ at each building or structure served shall be bonded together to form the grounding electrode system. Where none of these grounding electrodes exist, one or more of the grounding electrodes specified in 250.52(A)(4) through (A)(8) shall be installed and used.

Item 6.9: Modify 250.53 (A) (2) to match D-1 Agenda Item – No Cost Impact

250.53 (A) (2)
Exception No. 1: If a single, rod, pipe, or plate grounding electrode has a resistance to earth of 25 ohms or less, the supplemental electrode shall not be required.

Exception No. 2: The supplemental ground electrode shall not be required at temporary electrical service installation (saw service pole) at construction site for one and two-family residences, provided the temporary electrical service does not exceed 150 volts to ground or 100A.

Item 6.10: Retain Table and Language of 2011 NEC related to sizing of Dwelling Services and Feeders – No Cost Impact

310.15 (B) (7) 120/240-Volt, Single-Phase Dwelling Services and Feeders.

~~For one family dwellings and the individual dwelling units of two family and multifamily dwellings, service and feeder conductors supplied by a single phase, 120/240 volt system shall be permitted be sized in accordance with 310.15(B)(7)(1) through (4).~~

~~(1) For a service rated 100 through 400 A, the service conductors supplying the entire load associated with a one family dwelling, or the service conductors supplying the entire load associated with an individual dwelling unit in a two family or multifamily dwelling, shall be permitted to have an ampacity not less than 83 percent of the service rating.~~

~~(2) For a feeder rated 100 through 400 A, the feeder conductors supplying the entire load associated with a one family dwelling, or the feeder conductors supplying the entire load associated with an individual dwelling, unit in a two family or multifamily dwelling, shall be permitted to have an ampacity not less than 83 percent of the feeder rating.~~

~~(3) In no case shall a feeder for an individual dwelling unit be required to have an ampacity greater than that specified in 310.15(B)(7)(1) or (2).~~

~~(4) Grounded conductors shall be permitted to be sized smaller than the ungrounded conductors, provided that the requirements of 220.61 and 230.42 for service conductors or the requirements of 215.2 and 220.61 for feeder conductors are met.~~

~~Informational Note No. 1: The conductor ampacity may require other correction or adjustment factors applicable to the conductor installation.~~

~~Informational Note No. 2: See Example D7 in Annex D.~~

Delete Example D7 in 2014 NEC
Replace with 2011 NEC text & table:

310.15 (B) (7) 120/240-Volt, 3-Wire, Single-Phase Dwelling Services and Feeders.

For individual dwelling units of one-family, two-family, and multifamily dwellings, conductors, as listed in Table 310.15(B)(7), shall be permitted as 120/240-volt, 3-wire, single-phase service-entrance conductors, service-lateral conductors, and feeder conductors that serve as the main power feeder to each dwelling unit and are installed in raceway or cable with or without an equipment grounding conductor. For application of this section, the main power feeder shall be the feeder between the main disconnect and the panelboard that supplies, either by branch circuits or by feeders, or both, all loads that are part or associated with the dwelling unit. The feeder conductors to a dwelling unit shall not be required to have an allowable ampacity rating greater than their service-entrance conductors. The grounded conductor shall be permitted to be smaller than the ungrounded conductors, provided the requirements of 215.2, 220.61, and 230.42 are met.

Table 310.15(B)(7) Conductor Types and Sizes for 120/240-Volt, 3-Wire, Single-Phase Dwelling Services and Feeders. Conductor Types RHH, RHW, RHW-2, THHN, THHW, THW, THW-2, THWN, THWN-2, XHHW, XHHW-2, SE, USE, USE-2

	Conductor (AWG or kcmil)	
Service or Feeder Rating (Amperes)	Copper	Aluminum or Copper-Clad Aluminum
100	4	2
110	3	1
125	2	1/0
150	1	2/0
175	1/0	3/0
200	2/0	4/0
225	3/0	250
250	4/0	300
300	250	350
350	350	500
400	400	600

Item 6.11: Retain Existing NC Electrical Code Amendment to 334.15 (C) – No Cost Impact

334.15 (C) In Unfinished Basements ~~and Crawl Spaces~~. Where cable is run at angles with joists in unfinished basements, ~~and crawl spaces,~~ it shall be permissible to secure cables not smaller than two 6 AWG or three 8 AWG conductors directly to the lower edges of the joists. Smaller cables shall be run either through bored holes in joists or on running boards. Nonmetallic-sheathed cable installed on the wall of an unfinished basement shall be permitted to be installed in a listed conduit or tubing or shall be protected in accordance with 300.4. Conduit or tubing shall be provided with a suitable insulating bushing or adapter at the point the cable enters the raceway. The sheath of the nonmetallic-sheathed cable shall extend through the conduit or tubing and into the outlet or device box not less than 6 mm (1⁄4 in.). The cable shall be secured within 300 mm (12 in.) of the point where the cable enters the conduit or tubing. Metal conduit, tubing, and metal outlet boxes shall be connected to an equipment grounding conductor complying with the provisions of 250.86 and 250.148.

Item 6.12: Revise to reflect NC Electrical Code Amendment with January 1, 2015 effective date. – No Cost Impact

Article 404.2(C)
(8) Where installed in residential one- and two- family dwellings

Item 6.13: Remove term "readily" from 406.4 (D) and add new exception – No Cost Impact

406.4 (D) Replacements. Replacement of receptacles shall comply with 406.4(D)(1) through (D)(6), as applicable. Arc-fault circuit-interrupter type and ground-fault circuit-interrupter type receptacles shall be installed in an ~~readily~~ accessible location.

(1) Grounding-Type Receptacles. Where a grounding means exists in the receptacle enclosure or an equipment grounding conductor is installed in accordance with 250.130(C), grounding-type receptacles shall be used and shall be connected to the equipment grounding conductor in accordance with 406.4(C) or 250.130(C).

(2) Non–Grounding-Type Receptacles. Where attachment to an equipment grounding conductor does not exist in the receptacle enclosure, the installation shall comply with (D)(2)(a), (D)(2)(b), or (D)(2)(c).
(a) A non–grounding-type receptacle(s) shall be permitted to be replaced with another non–grounding-type receptacle(s).
(b) A non–grounding-type receptacle(s) shall be permitted to be replaced with a ground-fault circuit interrupter type of receptacle(s). These receptacles shall be marked "No Equipment Ground." An equipment grounding conductor shall not be connected from the ground-fault circuit-interrupter-type receptacle to any outlet supplied from the ground-fault circuit-interrupter receptacle.
(c) A non–grounding-type receptacle(s) shall be permitted to be replaced with a grounding-type receptacle(s) where supplied through a ground-fault circuit interrupter. Grounding-type receptacles supplied through the ground-fault circuit interrupter shall be marked "GFCI Protected" and "No Equipment Ground." An equipment grounding conductor shall not be connected between the grounding type receptacles.

(3) Ground-Fault Circuit Interrupters. Ground-fault circuit-interrupter protected receptacles shall be provided where replacements are made at receptacle outlets that are required to be so protected elsewhere in this *Code*.
Exception: Where replacement of the receptacle type is impracticable, such as where the outlet box size will not permit the installation of the GFCI receptacle, the receptacle shall be permitted to be replaced with a new receptacle of the existing type, where GFCI protection is provided and the receptacle is marked "GFCI protected" and "no equipment ground," in accordance with 406.4(D)(2) (a), (b), or (c).

(4) Arc-Fault Circuit-Interrupter Protection. Where a receptacle outlet is supplied by a branch circuit that requires arc-fault circuit-interrupter protection as specified elsewhere in this *Code*, a replacement receptacle at this outlet shall be one of the following:
(1) A listed outlet branch-circuit type arc-fault circuit-interrupter receptacle
(2) A receptacle protected by a listed outlet branch-circuit type arc-fault circuit-interrupter type receptacle
(3) A receptacle protected by a listed combination type arc-fault circuit-interrupter type circuit breaker
This requirement becomes effective January 1, 2014.
Exception: Non-grounding type receptacles.

(5) Tamper-Resistant Receptacles. Listed tamper-resistant receptacles shall be provided where replacements are made at receptacle outlets that are required to be tamper-resistant elsewhere in this *Code*.

(6) Weather-Resistant Receptacles. Weather-resistant receptacles shall be provided where replacements are made at receptacle outlets that are required to be so protected elsewhere in this *Code*.

Item 6.14: For one- and two-family residences, remove term "readily" from 422.5 – No Cost Impact

422.5 Ground-Fault Circuit-Interrupter (GFCI) Protection. The device providing GFCI protection required in this article shall be readily accessible.
Exception: For one- and two-family residences, the device providing the GFCI protection required in this article shall be accessible.

Item 6.15: Retain Existing NC Electrical Code Amendment, Article 10. - No Cost Impact

Article 10 - ADMINISTRATIVE SECTION

10.1 TITLE

These Administrative Regulations along with the requirements included in the 2014 Edition of the National Electrical Code (NFPA-70 - 2014) as adopted by the North Carolina Building Code Council on (DATE TO BE DETERMINED), to be effective (DATE TO BE DETERMINED), with the following amendments:
PROVIDE LIST OF ALL NC AMENDMENTS shall be known as the North Carolina Electrical Code, and may be cited as such or as the State Electrical Code; and will be referred to herein as "the code" or "this code".

10.2 SCOPE

Article 80 Administration and Enforcement of the code is hereby not adopted and does not apply for this code. For Scope and Exceptions to Applicability of Technical Codes, refer to the North Carolina Administrative Code and Policies.

10.3 PURPOSE

The purpose of the code is to provide minimum standards, provisions and requirements of safe and stable design, methods of construction and uses of materials in buildings or structures hereafter erected, constructed, enlarged, altered, repaired, moved, converted to other uses of demolished and to regulate the electrical systems, equipment, maintenance, use and occupancy of all buildings or structures. All regulations contained in this code have a reasonable and substantial connection with the public health, safety, morals, or general welfare, and their provisions shall be construed liberally to those ends.

10.4 ADMINISTRATION

For administrative regulations pertaining to inspection (rough-ins and finals), permits and Certificates of Electrical Compliance, see local ordinances and the North Carolina Administrative Code and Policies. When the provisions of other codes are determined to be contrary to the requirements of this code, this code shall prevail.

10.5 DEFINITION

Unless the context indicates otherwise, whenever the word "building" is used in this chapter, it shall be deemed to include the word "structure" and all installations such as plumbing systems, heating systems, cooling systems, electrical systems, elevators and other installations which are parts of, or permanently affixed to, the building or structure.

10.6 APPLICATION OF CODE TO EXISTING BUILDINGS

For requirements of existing structures, refer to the North Carolina Administrative Code and Policies.

10.7 SERVICE UTILITIES

10.7.1 Connection of Service Utilities – No person shall make connections from a utility, source of energy, fuel or power to any building or system which is regulated by the technical codes until approved by the Inspection Department and a Certificate of Compliance is issued (General Statute 143-143.2)

10.7.2 Authority to disconnect Service Utilities – The Inspection Department shall have the authority to require disconnecting a utility service to the building, structure or system regulated by the technical codes, in case of emergency or where necessary to eliminate an imminent hazard to life or property. The Inspection Department shall have the authority to disconnect a utility service when a building has been occupied prior to Certificate of Compliance or entry into the building for purposes of making inspections cannot be readily granted. The Inspection Department shall notify the serving utility, and whenever possible the owner or occupant of the building, structure or service system of the decision to disconnect prior to taking such action. If not notified prior to disconnecting, the owner or occupant shall be notified in writing within eight (8) working

hours (General Statutes 143-143.2, 153A-365, 153A-366, 160A-425 and 160A-426).
NORTH CAROLINA ELECTRICAL CODE, 2014 EDITION

10.8 TEMPORARY POWER

10.8.1 Scope. The provisions of this section apply to the utilization of portions of the wiring system within a building to facilitate construction.
10.8.2 Provisions for Temporary Power. The Code enforcement official shall give permission and issue a permit to energize the electrical service when the provisions of 10.8 and the following requirements have been met:
1) The service wiring and equipment, including the meter socket enclosure, shall be installed, the service wiring terminated, and the service equipment covers installed.
2) The portions of the electrical system that are to be energized shall be complete and physically protected.
3) The grounding electrode system shall be complete.
4) The grounding and the grounded conductors shall be terminated in the service equipment.
5) At least one receptacle outlet with ground fault circuit interrupter protection for personnel shall be installed with the circuit wiring terminated.
6) The applicable requirements of the North Carolina Electrical Code apply.
10.8.3 Uses Prohibited. In no case shall any portion of the permanent wiring be energized until the portions have been inspected and approved by an electrical Code Enforcement Official. Failure to comply with this section may result in disconnection of power or revocation of permit.
10.8.4 Application for Temporary Power. Application for temporary power shall be made by and in the name of the applicant. The application shall explicitly state the port portions of the energized electrical system, mechanical system, or plumbing system for which application is made, its intended use and duration.
10.8.5 Security and Notification. The applicant shall maintain the energized electrical system or that portion of the building containing the energized electrical system in a secured and locked manner or under constant supervision to exclude unauthorized personnel. The applicant shall alert personnel working in the vicinity of the energized electrical system to its presence.

10.9 Requirements of Other State Agencies, Occupational Licensing Boards, or Commissions
The North Carolina State Building Codes do not include all additional requirements for buildings and structures that may be imposed by other State agencies, occupational licensing boards, and commissions. It shall be the responsibility of a permit holder, design professional, contractor, or occupational license holder to determine whether any additional requirements exist.

Fiscal Statement – This rule is expected to have a substantial economic impact. This rule is not expected to increase local and state funds. A fiscal note has been prepared and is posted at the following link:

http://www.ncdoi.com/OSFM/Engineering_and_codes/Default.aspx?field1=BCC_Minutes&user=Building_Code_Council&sub=BCC_Meeting

2014 NEC – View Only

https://archive.org/details/nfpa.nec.2014

Motion – Wade White/**Second** – Tim Fowler/**Adopted**. The delayed effective date of this Rule is April 1, 2016.

Item D – 7 Request by Lon McSwain, representing the NC BCC, to amend the 2012 NC Building Code, Sections 712.4 and 1018.1 and Table 1018.1, and the 2012 NC Fire Code Section 1018.1 and Table 1018.1. The proposed amendment is as follows:

1018.1 Construction. *Corridors* shall be fire-resistance rated in accordance with Table 1018.1. The *corridor* walls required to be fire-resistance rated shall comply with Section 709 for *fire partitions*.

~~**Exceptions:**~~

~~1. A *fire resistance rating* is not required for *corridors* in a Group E occupancy where each room that is used for instruction has at least one door opening directly to the exterior and rooms for assembly purposes have at least one half of the required *means of egress* doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.~~

~~2. A *fire resistance rating* is not required for *corridors* contained within a Group R dwelling or sleeping unit.~~

~~3. A *fire-resistance rating* is not required for *corridors* in *open parking garages*.~~

~~4. A *fire resistance rating* is not required for *corridors* in an occupancy in Group B which is a space requiring only a single *means of egress* complying with Section 1015.1.~~

TABLE 1018.1
CORRIDOR FIRE-RESISTANCE RATING
(footnotes a through e remain unchanged)

f. Exit access corridors are not required to be rated on any single tenant floor or in any single tenant space, when ~~1 hour fire resistance rated tenant demising walls are provided between all tenants spaces and~~ 1-hour fire-resistance-rated floor/ceiling assemblies are provided in multistory buildings and fire partitions are provided between other tenant spaces on the same floor. The structure supporting such floor/ceiling assemblies and fire partitions is not required to be rated in Types IIB, IIIB and VB construction.

g. A fire-resistance rating is not required for corridors in a Group E occupancy where each room that is used for instruction has at least one door opening directly to the exterior and rooms for assembly purposes have at least one-half of the required means of egress doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.

h. A fire-resistance rating is not required for corridors contained within a Group R dwelling or sleeping unit.

i. A fire-resistance rating is not required for corridors in open parking garages.

j. A fire-resistance rating is not required for corridors in an occupancy in Group B which is a space requiring only a single means of egress complying with Section 1015.1.

(Insert footnote references as required in the table. Footnote f for Group B, g for Group E, h for Group R, i for Group S, j for Group B)

712.4 Continuity. Assemblies shall be continuous without openings, penetrations or joints except as permitted by this section and Section 708.2, 713.4, 714 and 1022.1. Skylights and other penetrations through a fire-resistant-rated roof deck or slab are permitted to be unprotected, provided that the structural integrity of the fire-resistant-rated roof assembly is maintained. Unprotected skylights shall not be permitted in roof assemblies required to be fire-resistance rated in accordance with Section 705.8.6. The supporting construction shall be protected to afford the required *fire-resistance rating* of the *horizontal assembly* supported.

Exceptions:

1. In buildings of Type IIB, IIIB, or VB construction, the construction supporting the *horizontal assembly* is not required to be fire-resistance-rated at the following:

~~1.~~ 1.1. Horizontal assemblies at the separations of incidental uses as specified by Table 508.2.5, provided the required *fire-resistance rating* does not exceed 1 hour.

~~2.~~ 1.2. Horizontal assemblies at the separation of *dwelling units* and *sleeping units* as required by Section 420.3.

~~3.~~ 1.3. Horizontal assemblies as *smoke barriers* constructed in accordance with Section 710.

2. Horizontal assemblies constructed solely for the purpose of satisfying the requirements of footnote f of Table 1018.1.

Motion – Leah Barrett/**Second** – Tim Fowler/**Adopted**. The delayed effective date of this Rule is January 1, 2017.

Item D – 8 Request by Tom Brown, Jeff Griffin, Mark Matheny and Reggie Hucks, representing the NC BIA, to amend the 2012 NC Building Code, Section 1008.1.10. The proposed amendment is as follows:

1008.1.10 Panic and fire exit hardware. Doors serving a Group H occupancy and doors serving rooms or spaces with an *occupant load* of 50 or more in a Group A or E occupancy shall not be provided with a latch or lock unless it is panic hardware or *fire exit hardware*.

Exception: A main *exit* of a Group A occupancy in compliance with Section 1008.1.9.3, Item 2.

Electrical rooms with equipment rated ~~1,200~~ 800 amperes or more and over 6 feet (1829 mm) wide that contain overcurrent devices, switching devices or control devices with *exit* or *exit access* doors shall be equipped with panic hardware or *fire exit hardware*. The doors shall swing in the direction of egress travel.

Motion – Tim Fowler/**Second**/**Adopted**. The delayed effective date of this Rule is January 1, 2017.

Part E – Reports

Chairman's Report
-Dan Tingen stated that he mentioned in the Administrative Committee meeting that he would like for the Council to update Section 202.8.2 in their Ad-Hoc committees. A motion was made by David Smith to accept, it was seconded and approved.

-Dan Tingen mentioned that the code adoption process was quickly falling behind due to delays. He stated that he will appoint the Ad-Hoc committees by speaking with the various chairmen, once the Governor's Office makes the various appointments to the Council.

-Dan Tingen read that the One- and Two-Family Dwelling Committee shall be composed of seven members of the Building Code Council. They are a licensed General Contractor as chairman, Dan Tingen; a licensed General Contractor specializing in coastal construction, David Smith; a Heating and Air Conditioning contractor, Paula Strickland; the Fire Services representative, Alan Perdue; the Municipal/County Inspector, Scott Stevens; and a licensed Electrical Contractor, Tim Fowler. The Building Committee shall be composed of members of the Building Code Council. They are one licensed Architect; a licensed Engineer practicing Mechanical Engineering, Al Bass (predecessor); a licensed Engineer practicing Electrical Engineering, Wade White; a licensed Engineer practicing Structural Engineering, Steve Knight; a Municipal Elected Official, Scott Stevens; a State Agency Engineer, Cindy Register; a licensed General Contractor, Robbie Davis. Chairman Tingen called a meeting to elect a chair.

Ad Hoc Committee Reports
-Ralph Euchner reported that the Energy Code Committee was finalized with meeting dates already on the calendar. He also reported that the Fuel Gas Code Committee members are in the process of being finalized.

-David Smith reported that the Residential Committee has been meeting and will continue meeting for several months. He said things are going well. He asked to have 3-ring binders offered for their code books. Chris Noles stated that there was a significant cost impact for going that route. There was discussion about offering the codes online.

-Steve Knight reported that the Structural Committee has been meeting and will continue to meeting for several months.

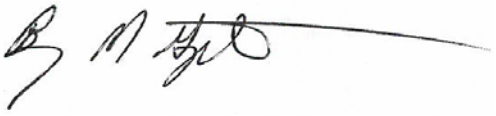
Standing Committee Reports
There were none.

Staff Reports
-Barry Gupton introduced Dan Austin as the new Chief Fire Code consultant.

Public Comments
There were none.

Part F – Appeals
Chapel of the Cross – NCDOI – Chapel Hill – Wednesday, February 3, 2016 at the NCDOI, Chapanoke Road Office.

Sincerely,



Barry Gupton, P.E.
Secretary, NC Building Code Council