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

All members of the North Carolina Building Code Council were present for the Council Meeting with the exception of Alan Perdue and Frankie Meads.

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**, **December 15**, **2015**. The location will be announced 30 days before the meeting.

[Al Bass made a **motion** to nominate Steve Knight to replace John Hitch as the NC BCC Vice-Chairman. The council was in favor.]

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 June 9, 2015 NC Building Code Council Meeting.

A **motion** to accept the June 9th meeting minutes was made, **seconded** by Tim Fowler, and **approved** with modifications.

Item A – 3 Secretary of State Notice of Appointment of Mr. Daniel S. Priest to the NC Building Code Council.

Chairman Tingen introduced and welcomed Mr. Priest to the Council.

Item A – 4 Notice for the NC Building Code Council meeting schedule through the fiscal year 2015-2016.

For public information purposes.

Item A – 5 City of Concord Fire Code Ordinance.

[NOTE: This item was delayed from the June BCC Meeting]

Motion – Robbie Davis/**Second** – Paula Strickland/**Approved** with modifications. The request was approved.

Item A – 6 Rules Review Commission Meeting Report

The D-Items from the June 2015 BCC meeting were approved by the Rules Review Committee with the exception of Item D-7 with a request to re-advertise for public comment in December.

Item A – 7 Public Comments

There were none.

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 December 2015 meeting.

Item B – 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.

Motion – David Smith/**Second** – Steve Knight/**Approved**. The request was granted. The proposed effective date of this rule is June 1, 2016 (earliest through RRC), unless the BCC assigns a delayed effective date (January 1, 2017).

Item B – 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 buildings* 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.

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 nightelub), 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.

<u>Table 407.1</u>											
Relative Occu	pancy	7 Hazard									

Motion/Second/Approved. The request was granted. The proposed effective date of this rule is June 1, 2016 (earliest through RRC), unless the BCC assigns a delayed effective date (January 1, 2017).

Item B - 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) <u>The section of raceway routed in a wet location above grade does not</u> <u>exceed 1500 mm (5 ft) in length;</u>
- (2) <u>Any fittings or conduit bodies are watertight and listed for use in wet</u> <u>locations; and</u>
- (3) <u>Raceway is open at its termination point in a dry location.</u>

Motion/Second/Approved. The request was granted. The proposed effective date of this rule is June 1, 2016 (earliest through RRC), unless the BCC assigns a delayed effective date (January 1, 2017).

Item B – 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 <u>a condensate drain</u>, 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, <u>condensate drains</u>, 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.

Motion/Second/Approved. The request was granted. The proposed effective date of this rule is June 1, 2016 (earliest through RRC), unless the BCC assigns a delayed effective date (January 1, 2017).

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

Item C – 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. <u>All Hot</u> water distribution pipe and tubing shall have a minimum pressure rating of 100 psi (690 kPa) at 180°F (82°C). <u>Cold water distribution pipe and tubing shall have a minimum pressure rating of 160 psi (1100 kPa) at 73.4°F (23°C).</u>

Jim Paschal, representing Aquatherm, recommends that the Council adopt this code change.

Item C – 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)

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					
			Ro	ofs							
X Insulation	U-0.039	U-0.039	U-0.032	U-0.032	U-0.032	U-0.032					
entirely above											
deck											
Metal buildings	U-0.041	U-0.041	U-0.037	U-0.037	U-0.037	U-0.037					
Attic and other-	U-0.027	U-0.041	U-0.021	U-0.021	U-0.021	U-0.021					
wood framing		<u>U-0.027</u>	<u>U-0.024</u>	<u>U-0.024</u>	U-0.024	<u>U-0.024</u>					
Attic and other –	<u>U-0.035</u>	<u>U-0.035</u>	U-0.029	U-0.029	<u>U-0.029</u>	<u>U-0.029</u>					
steel framing											
Walls, Above Grade											
Mass	U-0.123	U-0.104	U-0.104	U-0.090	U-0.090	U-0.060					
						<u>U-0.071</u>					
Metal building	U-0.094	U-0.072	U-0.060	U-0.050	U-0.050	U-0.050					
Metal framed	Other	Other	Other	Other	Other	Other proposal					
	proposal	proposal	proposal	proposal	proposal						
Wood framed	Other	Other	Other	Other	Other	Other proposal					
and other	proposal	proposal	proposal	proposal	proposal						
			Walls, Be	low Grade							
Below-grade	C-0.119	C-0.119	C-0.119	C-0.092	C-0.119	C-0.092					
wall ^a)					
	1	1	Flo	ors	1						
Mass	U-0.064	U-0.064	U-0.057	U-0.051	U-0.057	U-0.051					
Joist / Framing-	U-0.033	U-0.033	U-0.027	U-0.027	U-0.027	U-0.027					
wood			<u>U-0.026</u>	U-0.026	<u>U-0.026</u>	<u>U-0.026</u>					
Joist / Framing-	<u>U-0.032</u>	<u>U-0.032</u>	<u>U-0.032</u>	<u>U-0.032</u>	<u>U-0.032</u>	<u>U-0.032</u>					
steel											
			Slab-on-G	rade 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-0.688	F-0.688	F-0.688					
			F-0.843								
I ^{-0.043}											

 TABLE 502.1.2

 ULDING ENVELOPE REQUIREMENTS OPAQUE ELEMENT MAXIMUM U-FACTORS

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.

There were no comments on this item.

Item C – 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.

Wayne Hamilton, representing the NC Fire Service Code Revision Committee, recommends that the Council adopt this code change.

Item C – 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 <u>An A-2 occupancy meeting</u> all of the following conditions:

1. Has a posted capacity or occupant load that exceeds one occupant per 15-square foot (1.39m²) 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 beverages consumption.

Wayne Hamilton, representing the NC Fire Service Code Revision Committee, recommends that the Council adopt this code change.

Item C – 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

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

Don Sheffield, City of Greensboro, spoke on this item.

Mark Matheny, representing the NC Building Inspectors Association, does not recommend that the Council adopt this code change.

Wayne Hamilton, representing the NC Fire Service Code Revision Committee, does not recommend that the Council adopt this code change.

Item C - 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.

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.

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 an 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 ft²) shall have at least one receptacle(s) located in each wall space 900 mm (3 ft) or more in width. Doorways, doorside 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 <u>available present</u> 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 <u>No. 1</u>: 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, 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 erawl 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 circuitinterrupter 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:

<u>PROVIDE LIST OF ALL NC AMENDMENTS shall be known as the North Carolina</u> <u>Electrical Code, and may be cited as such or as the State Electrical Code; and will be</u> 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_Mi nutes&user=Building_Code_Council&sub=BCC_Meeting

2014 NEC - View Only

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

Terry Cromer recommends that the Council adopt this code change.

Brian Holland, spoke in opposition to the NC amendments.

Pam Elliot, representing burn survivors, spoke in opposition to the AFCI amendments.

Ron Chilton, Staff, addressed that the 6.6 (B)(2) Exception is okay.

Jeff Sargent, NFPA, spoke in opposition to the NC amendments.

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

Part D – Final Adoption

The following Petitions for Rulemaking have been granted by the Council. Notice of Rulemaking proceedings and Public Hearing has been made. The Public Hearings were held June 9, 2015. The Final Adoption meeting took place on September 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 Lon McSwain, representing the NC BCC, to amend the 2012 NC Building Code, Volume I, Table 508.4. The proposed amendment is as follows:

	REQUIRED SEFARATION OF OCCUPANCIES																			
occu	IPANCY	Ad	в	Е	F-1	F-2	H-1	H- 2	H-3	H-4	H-5	I-1	I-2	I-3	I-4	м	R	S-1	S-2⁵	U
В	S	1	2 ^e	1	2	1	NP	2	1	1	1	1	2	1	1	1	1	<u>21</u>	1	1
D	NS	2	2 ^e	2	3	2	NP	3	2	2	2 ^a	2	NP	2	2	2	2	<u>32</u>	2	2
М	S	1	1	1	2	1	NP	2	1	1	1	1	2	1	1	2 ^e	1	<u>21</u>	1	1
IVI	NS	2	2	2	3	2	NP	3	2	2	2 ^a	2	NP	2	2	2 ^e	2	<u>32</u>	2	2
S-1	S	1	<u>21</u>	1	2	1	NP	2	1	1	1	1	2	1	1	<u>21</u>	1	3 ^e	1	1
3-1	NS	2	3 2	2	3	2	NP	3	2	2	2	2	NP	2	2	3 2	2	3 ^e	2	2

TABLE 508.4 REQUIRED SEPARATION OF OCCUPANCIES

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

Item D – 2 Request by Lon McSwain, representing the NC BCC, to amend the 2012 NC Building Code, Volume I, Section 1007.7. The proposed amendment is as follows:

1007.7 Exterior area for assisted rescue. The exterior area for assisted rescue must be open to the outside air and meet the requirements of Section 1007.6.1. Separation walls shall comply with the requirements of Section 705 for *exterior walls*. Where walls or openings are between the area for assisted rescue and the interior of the building, the building *exterior walls* within 10 feet (3048 mm) horizontally of a nonrated wall or unprotected opening shall have a *fire resistance rating* of not less than 1 hour. Openings within such *exterior walls* shall be protected by opening protectives having a *fire protection rating* of not less than 3/4 hour. This construction shall extend vertically from the ground to a point 10 feet (3048 mm) above the floor level of the area for assisted rescue or to the roof line, whichever is lower.

Exception: Areas for assisted rescue that are located greater than 10 feet (3048 mm) from the exterior face of a building are not required to be separated from the building by fire-resistance rated walls or protected openings.

Motion – Lon McSwain/**Second** – Leah Barrett/**Adopted** with modifications. The delayed effective date of this Rule is January 1, 2017.

Item D - 3 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 1018.1CORRIDOR 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 <u>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.</u>

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.

<u>h.</u> 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:

<u>1.</u> 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. <u>1.3.</u> Horizontal assemblies as *smoke barriers* constructed in accordance with Section 710.

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

Motion to postpone and bring back as a D-Item on the December BCC Agenda – Lon McSwain/**Second/Passed**.

Item D - 4 Request by Lon McSwain, representing the NC BCC, to amend the 2012 NC Building Code, Section 1109.14. The proposed amendment is as follows:

1109.14 Recreational and sports facilities. Recreational and sports facilities shall be provided with *accessible* features in accordance with Sections 1109.14.1 through 1109.14.4.

Exception: Pools for single or multiple Group R-2 and Group R-3 occupancy buildings intended for the residents only.

1109.14.1 Facilities serving a single building. In Group R-2 and R-3 occupancies where recreational facilities are provided serving a single building containing *Type A units* or *Type B units*, 25 percent, but not less than one, of each type of recreational facility shall be *accessible*. Every recreational facility of each type on a site shall be considered to determine the total number of each type that is required to be *accessible*.

1109.14.2 Facilities serving multiple buildings. In Group R-2 and R-3 occupancies on a single *site* where multiple buildings containing *Type A units* or *Type B units* are served by recreational facilities, 25 percent, but not less than one, of each type of recreational facility serving each building shall be *accessible*. The total number of each type of recreational facility that is required to be *accessible* shall be determined by considering every recreational facility of each type serving each building on the site.

1109.14.3 Other occupancies. All recreational and sports facilities not falling within the purview of Section 1109.14.1 or 1109.14.2 shall be *accessible*.

Motion – Lon McSwain/**Second** – Leah Barrett/**Adopted** with modifications. The delayed effective date of this Rule is January 1, 2017.

Item D – 5 Request by Wayne Hamilton, NC Fire Service Code Revision Committee, to amend the 2012 NC Fire Code, Sections 308.1.6.3 & 202. The proposed amendment is as follows:

308.1.6.3 Sky lanterns. A person shall not release or cause to be released an untethered *sky lantern*.

Add the following to section 202 General Definitions of the NC Fire Code:

SKY LANTERN. An unmanned device with a fuel source that incorporates an open flame in order to make the device airborne.

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

Item D - 6 Request by David Smith, representing the Residential Ad-Hoc Committee, to amend the 2012 NC Residential Code, Section R102.7. The proposed amendment is as follows:

R102.7 Existing structures. For requirements of existing structures, refer to the North Carolina Administration and Enforcement Requirements Code and the North Carolina Existing Building Code.

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

Item D - 7 Request by David Smith, representing the Residential Ad-Hoc Committee, to amend the 2012 NC Residential Code, Table R302.6. The proposed amendment is as follows:

ess than 1/2-inch gypsum board or equivalent eed to the garage side ess than 5/8-inch X-gypsum board or valent
,
ess than 1/2-inch gypsum board or equivalent
ess than 1/2-inch gypsum board or equivalent ed to the interior side of exterior walls that are in this area
1

TABLE R302.6 DWELLING/GARAGE SEPARATION

Footnote: a. For dwelling units constructed prior to the 2012 code edition, 1/2" or greater existing gypsum on the bottom side of the garage ceiling shall be acceptable. Joints shall be taped.

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

Item D - 8 Request by David Smith, representing the Residential Ad-Hoc Committee, to amend the 2012 NC Residential Code, Section R308.4. The proposed amendment is as follows:

R308.4 Hazardous Locations. The following shall be considered specific hazardous locations for the purposes of glazing:

7. Glazing adjacent to stairways, landings and ramps within 36 inches (914 mm) horizontally of a walking surface when the exposed surface of the glazing is less than 60 inches (1524 mm) above the plane of the adjacent walking surface.

Exception:

- 1. When a rail is installed on the accessible side(s) of the glazing 34 to 38 inches (864 to 965 mm) above the walking surface. The rail shall be capable of withstanding a horizontal load of 50 pounds per linear foot (730 N/m) without contacting the glass and be a minimum of $1\frac{1}{2}$ inches (38 mm) in cross sectional height.
- 2. Where a change in elevation is 8¼ inches or less at an exterior door.

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

Item D – 9 Request by David Smith, representing the Residential Ad-Hoc Committee, to amend the 2012 NC Residential Code, Section R311.4. The proposed amendment is as follows:

R311.4 Vertical egress. Egress from habitable levels including habitable attics and basements not provided with an egress door in accordance with Section R311.2 shall be by a ramp in accordance with Section R311.8 or a stairway in accordance with Section R311.7. Deleted.

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

Item D-10 Request by David Smith, representing the Residential Ad-Hoc Committee, to amend the 2012 NC Residential Code, Section R408.2. The proposed amendment is as follows:

R408.2 Ground vapor retarder. When required by Section R408.1.1, A <u>a</u> minimum 6mil (0.15 mm) polyethylene vapor retarder or equivalent shall be installed to nominally cover all exposed earth in the crawl space, with joints lapped not less than 12 inches. Where there is no evidence that the groundwater table can rise to within 6 inches (152 mm) of the floor of the crawl space, it is acceptable to puncture the ground vapor retarder at low spots to prevent water puddles from forming on top of the vapor retarder due to condensation. Install a drain to daylight or sump pump at each low spot. Crawl space drains shall be kept separate from roof gutter drain systems and foundation perimeter drains.

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

Item D-11 Request by David Smith, representing the Residential Ad-Hoc Committee, to amend the 2012 NC Residential Code, Table R602.10.1. The proposed amendment is as follows:

Method	Minimum		Generation Criter	ia	Illustration of			
weinod	Minimum Brace Material	Minimum Brace	Connection Criter	Illustration of Bracing Method				
	Thickness or	Panel Length or Brace Angle	Fasteners	Spacing	(illustrates method			
	Size	_			only, not location)			
LIB	1x4 wood brace	45° angle for	2-8d common	Per stud and				
Let-in Bracing	(or approved metal	maximum 16" oc	nails or 3-8d (2-	top and				
	brace installed per manufacturer	stud spacing ³	1/2" long x	bottom plates				
	instructions)		0.113" dia.) nails					
DWB	¾" (1" nominal)	48″	2-8d (2-1/2"	Per stud and				
Diagonal wood			long x 0.113"	top and				
boards			diameter) or 2 –	bottom plates				
			1-3/4" long					
			staples					
WSP	3/8"	48"4	6d common nail	6" edges 12"				
Wood structural			or 8d (2-1/2"	field				
panel			long x 0.113"					
			diameter) nail					
SFB	1/2"	48"4	1-1/2" long x	3" edges 6"				
Structural			0.120" dia.	field				
Fiberboard			Galvanized					
Sheathing GB	1/2"	96" for use with	roofing nails Min. 5d cooler	7" edges 7"				
	72	R602.10.2	nails or #6	field				
Gypsum Board Installed on both		48" for use with	screws	neiu				
sides of wall		R602.10.3	SCIEWS					
PCP	3/4"	48"	1-1/2" long, 11	6" o.c. on all	\langle			
Portland cement	(maximum	-10	gage, 7/16"	framing				
plaster	16"oc stud		diameter head	members				
	spacing)		nails or 7/8"					
	1 0,		long, 16 gage					
			staples					
CS-WSP ⁵	3/8"	24" adjacent to	Same as WSP	Same as WSP				
Continuously		window not more						
sheathed WSP		than 67% of wall						
CS-SFB ⁵	1/2"	height; 30" adjacent to door or	Same as SFB	Same as SFB				
Continuously		window greater			(FITT)			
sheathed SFB		than 67% and less						
		than 85% of wall			ннн			
		height. 48" for taller openings.						
PF	7/16"	See Figure	See Figure	See Figure				
Portal Frame ^{6,7,8}	//10	R602.10.1	R602.10.1	R602.10.1				
					41 41			

Table R602.10.1 BRACING METHODS^{1, 2}

Table Notes:

 Alternative bracing materials and methods shall comply with Section 105 of the North Carolina Administrative Code and Policies, and shall be permitted to be used as a substitute for any of the bracing materials listed in Table R602.10.1 provided at least equivalent performance is demonstrated. Where the tested bracing strength or stiffness differs from tabulated materials, the bracing amount required for the alternative material shall be permitted to be factored to achieve equivalence.

- 2. All edges of panel-type wall bracing shall be attached to framing or blocking, except GB bracing horizontal joints shall not be required to be blocked when joints are finished.
- 3. Two LIB braces installed at a 60° angle shall be permitted to be substituted for each 45° angle LIB brace.
- 4. For 8-foot or 9-foot wall height, brace panel minimum length shall be permitted to be reduced to 36-inch or 42-inch length, respectively, where not located adjacent to a door opening. A braced wall panel shall be permitted to be reduced to a 32-inch length when studs at each end of the braced wall panel are anchored to foundation or framing below using hold-down device with minimum 2,800 lbs. design tension capacity. For detached single story garages and attached garages supporting roof only, a minimum 24-inch brace panel length shall be permitted on one wall containing one or more garage door openings.
- 5. Bracing methods designated CS-WSP and CS-SFB shall have sheathing installed on all sheathable surfaces above, below, and between wall openings.
- 6. For purposes of bracing in accordance with Section R602.10.2, two portal frame brace panels with wood structural panel sheathing applied to the exterior face of each brace panel as shown in Figure R602.10.1 shall be considered equivalent to one braced wall panel.
- 7. <u>Structural fiberboard (SFB) shall not be used in portal frame construction.</u>
- 8. <u>No more than three portal frames shall be used in a single building elevation.</u>
- 9. <u>CS-WSP and CS-SFB cannot be mixed on the same story.</u>

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

Item D-12 Request by David Smith, representing the Residential Ad-Hoc Committee, to amend the 2012 NC Residential Code, Section R703.12. The proposed amendment is as follows:

R703.12. Adhered <u>stone or masonry veneer installation</u>. Adhered <u>stone or masonry</u> veneer shall be installed in accordance with the manufacturer's instructions. <u>Protection</u> against the accumulation of water in the exterior wall assembly shall be provided in accordance with Section R703.6 of this code.

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

Item D-13 Request by Tim Norris, representing Norris Enterprises, Inc./NCAEC, to amend the 2011 NEC, Section 406.4(D)(4). The proposed amendment is as follows:

406.4(D)(4) Are-Fault Circuit-Interrupter Protection. Where a receptacle outlet is supplied by a branch circuit that requires are fault 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.

Deleted.

Motion to Adopt – Cindy Register/Second – Wade White/Failed with a vote of 6/7.

Motion to Deny – Lon McSwain/**Second** – Leah Barrett/**Denied**.

Item D-14 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 $\frac{1,200}{800}$ 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.

NOTE: [Hold for 2014 NEC Adoption in December]

Item D-15 Request by Andrew Herring and Jeff Vernon, representing Mecklenburg County, to amend the 2012 NC Building Code, Section 706.2 & Table 706.4. The proposed amendment is as follows:

706.2 Structural stability. *Fire walls* shall have sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall for the duration of time indicated by the required *fire-resistance rating*.

Exception: For *fire walls* separating Group R-2 and S-2 buildings of different construction types per footnotes c and d of Table 706.4, the structural wall of the S-2 building shall be permitted to serve as the *fire wall* between the buildings and shall be permitted to be laterally supported by floor construction of the same rating as the wall.

706.3 Materials. *Fire walls* shall be of any *approved* noncombustible materials.

Exception: Buildings of Type V construction.

706.4 Fire-resistance rating. *Fire walls* shall have a *fire-resistance rating* of not less than that required by Table 706.4.

FIRE WALL FIRE-RESISTANCE RATINGS									
GROUP	FIRE-RESISTANCE RATING (hours)								
A, B, E, H-4, I, R-1, R-2 <u>c,d</u> , U	3a								
F-1, H-3 ^b , H-5, M, S-1	3								
H-1, H-2	4b								
F-2, S-2 <u>c.d</u> , R-3, R-4	2								

 TABLE 706.4

 FIRE WALL FIRE-RESISTANCE RATINGS

a. In Type II or V construction, walls shall be permitted to have a 2-hour fire-resistance rating.

b. For Group H-1, H-2, or H-3 building, also see Sections 415.4 and 415.5.

d. Where fire walls are used to separate R-2 buildings of Type III construction and S-2 buildings of Type IA construction, a 3 hour exterior wall of the Type IA S-2 structure shall be permitted to satisfy the requirements of Section 706.2 and Table 706.4 without requiring a *fire wall* on the R-2 building provided the floor construction of the S-2 structure has a fire-

c. Where *fire walls* are used to separate R-2 buildings of Type V construction and S-2 buildings of Type IB construction, a 2 hour exterior wall of the Type IB S-2 structure shall be permitted to satisfy the requirements of Section 706.2 and Table 706.4 without requiring a *fire wall* on the R-2 building provided the floor construction of the S-2 structure has a fire-resistance rating equal to or greater than the exterior walls of the S-2 structure when the floor provides lateral stability to the vertical construction.

resistance rating equal to or greater than the exterior walls of the S-2 structure when the floor provides lateral stability to the vertical construction.

Motion – Lon McSwain/**Second** – Leah Barrett/**Adopted** with modifications. The delayed effective date of this Rule is January 1, 2017.

Item D-16 Request by Paul Coats, representing the American Wood Council, to amend the 2012 NC Energy Conservation Code, Table 502.2(1). The proposed amendment is as follows:

Revise as follows:

(Note this is a companion change to a U-factor change, to Table 502.1.2)

Climate Zone	:	3	4	4	5			
	All Other	Group R	All Other	Group R	All Other	Group R		
		•	Roofs	•	•	•		
Insulation entirely above deck	R - 25 ci	R-25 ci	R - 30 ci	R-30 ci	R - 30 ci	R-30 ci		
Metal buildings (with R-5 thermal blocks) ^{a,b}	R-10 + R-19 FC	R-10 + R-19 FC	R-19 + R-11 Ls	R-19 + R-11 Ls	R-19 + R-11 Ls	R-19 + R-11 Ls		
Attic and other - wood framing	R-38	R-38	R-42	R-42	R-42	R-42		
Attic and other - steel framing	R-38	R-38	R-49	R-49	R-49	R-49		
		Wa	alls, Above Grade	•	•	•		
Mass	R-7.6 ci	R-9.5 ci	R-9.5 ci	R-11.4 ci	R-11.4 ci	R-15 ci		
Metal building ^b	R-0+R-13 ci	R-0 + R-19 ci	R-0 + R-15.8 ci	R-0 + R-19 ci	R-0 + R-19 ci	R-0 + R-19 ci		
Metal framed	R-13 + 7.5 ci	R- 13 + R-7.5 ci	R-13 + R-10 ci <u>R-13 + R-7.5ci</u>	<u>R-13 +</u> <u>R-12.5 ci</u> R-13 + R-7.5ci	R-13 + R-12.5 ci R-13 + R-7.5ci	R- 13 + R-15 ci R-13 + R-10ci		
Wood framed and	R-13 + R-3.8 ci	R-19, R-13+ R-	R-13 + R-7.5 ci	R-19, R-13+ R-	R-13 + R-10 ci	R-19, R-13+ R-		
other	or R-20	5, or R 15 + R	R-13 + R-3.8ci	5, or R 15 + R	R-13 + R-3.8 ci	5, or R 15 + R		
		3g <u>R-13 + R-3.8 ci</u> <u>or R-20</u>	<u>or R-20</u>	3_g <u>R-13 + R-3.8 ci</u> <u>or R-20</u>	<u>or R-20</u>	3_g <u>R-13 + R-7.5ci</u> <u>or R-20 + R-</u> 3.8ci		
		Wa	lls, Below Grade					
Below-grade wall ^c	R-7.5 ci	R-7.5 ci	R-7.5 ci	R-10 ci	R-7.5 ci	R-10 ci		
		1	Floors	1	1			
Mass	R-12.5 ci	R-12.5 ci	R-14.6 ci	R-16.7 ci	R-14.6 ci	R-16.7 ci		
Joist / Framing	R-30 ^e	R-30 ^e	R-38	R-38	R-38	R-38		
		Slab-	on-Grade Floorsd					
Unheated slabs	NR	R-10 for 24 in.	R-15 for 24 in.	R-15 for 24 in.	R-15 for 24 in.	R-20 for 24 in.		
Heated slabs	R-15 for 24 in.	R-15 for 24 in.	R-20 for 24 in.	R-20 for 48 in.	R-20 for 48 in.	R-20 for 48 in.		
	1	C	Dpaque Doors	I	I	I		
Swinging	U – 0.70	U – 0.50	U – 0.50	U – 0.50	U – 0.50	U – 0.50		
Roll-up or sliding	U - 0.50	U - 0.50	U - 0.50	U - 0.50	U - 0.50	U - 0.50		

TABLE 502.2(1)BUILDING ENVELOPE REQUIREMENTS – OPAQUE ASSEMBLIES

Motion – Ralph Euchner/**Second** – Robbie Davis/**Adopted**. The delayed effective date of this Rule is January 1, 2016.

Part E – Reports

Chairman's Report

-Dan Tingen discussed Alternate Methods and Materials. The Council asked for it to be sent to the Administrative Committee.

-Dan Tingen asked for a discussion on creating a calendar of Appeal dates.

-Public Comment is solicited from Interested Stakeholders on Large Dwelling Units (Resort and Bed & Breakfast Homes)

The Building Code Council Chair will appoint an Ad-hoc Committee to discuss Resort Homes and Bed & Breakfast Homes, and the committee will keep the Council up to date on the progress.

Session Law 2014-413 (House Bill 74) added a definition for "Bed and Breakfast Homes" to allow not more than 8-guest rooms in a private home. Larger houses are being proposed for resort areas to accommodate groups of people who are not familiar with the building safety features or with each other.

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.

Ad Hoc Committee Reports

The Residential and Structural Ad Hoc Committees have meetings scheduled.

Standing Committee Reports

There were none.

Staff Reports

Barry Gupton presented a preliminary schedule for the 2019 Code adoption.

Public Comments

-Mark Matheny, representing NC BIA, discussed HB 255.

Part F – Appeals

The following Appeals have been filed and are subject to change, continuance or withdrawal.

Letendre – NCDOI – scheduled for 10am, Tuesday, August 11, 2015 at the NCDOI, Dobbs Building, Jim Long Hearing Room. **Order.**

Chapel of the Cross – NCDOI – scheduled for 9am, Wednesday, September 16, 2015 at the NCDOI, Chapanoke Road Office. **Continued.**

Long – NCDOI – scheduled for 9am, Wednesday, September 16, 2015 at the NCDOI, Chapanoke Road Office. **Withdrawn.**

Seascape – NCDOI – scheduled for 9am, Monday, October 26, 2015 at the NCDOI, Chapanoke Road Office.

Sincerely,

> M the

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