Minutes of the North Carolina Building Code Council
March 12, 2019
Raleigh, NC

All members of the North Carolina Building Code Council were present for the Council meeting except Tony Sears.

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, June 11, 2019.** 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 January 28, 2019 NC Building Code Council Meeting.

A motion to accept the January 28, 2019 meeting minutes was made, seconded and approved.

Item A – 3 Request Ronnie Hayes representing Town of Leland, for approval of the Town Fire Protection and Prevention Ordinance.

Item is being continued until the Town of Leland approves their ordinance.

Item A – 4 Request by Ed Parvin representing the Town of Carolina Beach, for approval of Ordinance No. 14-953 for fire protection and prevention.

Motion to approve as revised by Wayne Hamilton. Second from Keith Rogers. Approved.

Item A – 5 Request by Ben Alexander representing the Town of Kitty Hawk, for approval of the Ordinance Amendment of the Town Code of Kitty Hawk.

Motion to approve by Wayne Hamilton. Second from Keith Rogers. Approved.

Item A – 6 Request by Bryan Phillips representing Moore County for the approval of the Resolution adopting the 2018 Fire Code Appendixes.

Motion to approve by Wayne Hamilton. Second. Approved.

Item A – 7 Rules Review Commission Meeting Report

There was no report from the RRC. Will report on January and March at the June 2019 meeting.

Item A – 8 Public Comments

Michael Rettie representing the Orange County Inspections office addressed the Council with a Code interpretation of Residential Code 107 regarding whether covered walkways are to be included in inspections by inspectors.

The Board explained the process of requesting an interpretation of a code as well as explaining that a paper will be coming from a combined effort of the NC Qualification Board and the NC Building Code Council explaining the eight inspections under Code 107.

Terry Cromer with the NC Association of Electrical Contractors addressed the Board regarding the result of an NFPA study involving a cause of pool shock where it was thought no electric current was running to the pool. Mr. Cromer went on to report how unexpected pool shock may occur due to current through Grounded Conductors in close house sparing in neighborhoods.

Part B – New Petition 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 June 11th meeting.

Item B – 1 Request by Carl Martin representing the North Carolina Department of Insurance to amend the 2018 NC Building Code, Sections 429.1.1 and 430.3.

429.1.1 Location.
Rooms where occupants receive care in I-4 and R-3 adult and child day care facilities shall be on the level of exit discharge.

Exception: Second story rooms used for first grade children but not younger than 2-1/2 years of age in licensed Group I-4 daycare facilities that meet all the following:

1. Fully sprinklered in compliance with 903.3.1.1,
2. Maximum of 49 children on the second story,
2. Maximum exit access travel distance is 75 feet,
3. Two remote means of egress are provided from each room containing children
4. Interior egress stairs shall be a minimum of 1-hour fire-resistant-rated and shall discharge directly to the exterior, and

5. Atriums shall not connect the first and second floor unless the atrium is 1-hour separated from the second floor.

430.3 Group E in churches, private schools and public schools.
Rooms used for first grade children and younger shall be located on the level of exit discharge. Rooms used for second grade children shall not be located more than one story above the level of exit discharge.

Exception: Second story rooms used for first grade children but not younger than 2-1/2 years of age in licensed Group E daycare facilities that meet all the following:

1. Fully sprinklered in compliance with 903.3.1.1,
2. Maximum of 49 children on the second story,
2. Maximum exit access travel distance is 75 feet,
3. Two remote means of egress are provided from each room containing children
4. Interior egress stairs shall be a minimum of 1-hour fire-resistant-rated and shall discharge directly to the exterior, and
5. Atriums shall not connect the first and second floor unless the atrium is 1-hour separated from the second floor.

Commercial Super Committee: Motion to accept by D. Priest. Second by W. Hamilton. Accepted.
Building Code Council: Motion to approve by D. Priest. Second by W. Hamilton. Granted.

Item B – 2 Request by Carl Martin representing the North Carolina Department of Insurance to amend the 2018 NC Building Code, Section 714.4.2 as follows:

714.4.2 Membrane penetrations.
Penetrations of membranes that are part of a *horizontal assembly* shall comply with Section 714.4.1.1 or 714.4.1.2. Where floor/ceiling assemblies are required to have a *fire-resistance rating*, recessed fixtures shall be installed such that the required *fire resistance* will not be reduced.

Exceptions:

7. The ceiling membrane of 1- and 2-hour fire-resistance-rated horizontal assemblies is permitted to be interrupted with the double wood top plate of a wall assembly ~~that is sheathed with Type X gypsum wallboard~~, provided that all penetrating items through the double top plate are protected in accordance with Section 714.4.1.1 or 714.4.1.2 and the ceiling membrane is tight to the top plate. For 2-hour fire-resistance-rated horizontal assemblies the wall assembly must be sheathed with Type X gypsum wallboard.

Commercial Super Committee: Motion to accept by D. Priest. Second by W. Hamilton. Accepted.
Building Code Council: Motion to approve by D. Priest. Second by W. Hamilton. Granted.

Item B – 3 Request by Terry Cromer representing the North Carolina Association of Electrical Contractors to amend the 2018 Administrative Code, Section 106.3.1 as follows:

106.3 Permit Application.
106.3.1 Information required. A permit application shall be filed with the Inspection Department on a form furnished for that purpose. The Inspection Department shall make available a list of information which must be submitted with the building permit application, including a complete building code summary (see Appendix A of the Administrative Code and Policies). Trade permit applications for miscellaneous electrical mechanical and plumbing work to be performed for other than the construction of, alterations, repairs or additions to one- and two- family dwellings, townhouses or other building or structure shall be submitted in the exact format as, and contain only the information in Appendix A-1 of the Administrative Code and Policies. The Inspection Department's building code summary shall be in the exact format as, and contain only the information in, Appendix B of the Administrative Code and Policies. The Inspection Department shall only modify its building code summary or trade permit application as set forth in section 103.5 Modifications, or as necessary to reflect any changes by the Office of State Fire Marshal to Appendix B or trade permit application which have been approved of by the Building Code Council.

APPENDIX A-1

This space reserve for department information

RESIDENTIAL & COMMERCIAL TRADE PERMIT
PLUMBING / MECHANICAL / ELECTRICAL / FUEL PIPING / FIRE PLACE / OTHER

Permit Holders Name: _____ Application Date: _____

Project Address: _____ Subdivision: _____

Property Owner: _____ Mobile phone #: _____

Email Address: _____

Is this property located within a flood plain? ☐ N/A ☐ No ☐ Yes *If yes, additional paperwork may be required*

Description of work: _____

_____

PLUMBING CONTRACTOR

Plumbing Contractor: _____ License #: _____
Project Supervisor: _____ Mobile #: _____
Email Address: _____

MECHNICAL CONTRACTOR

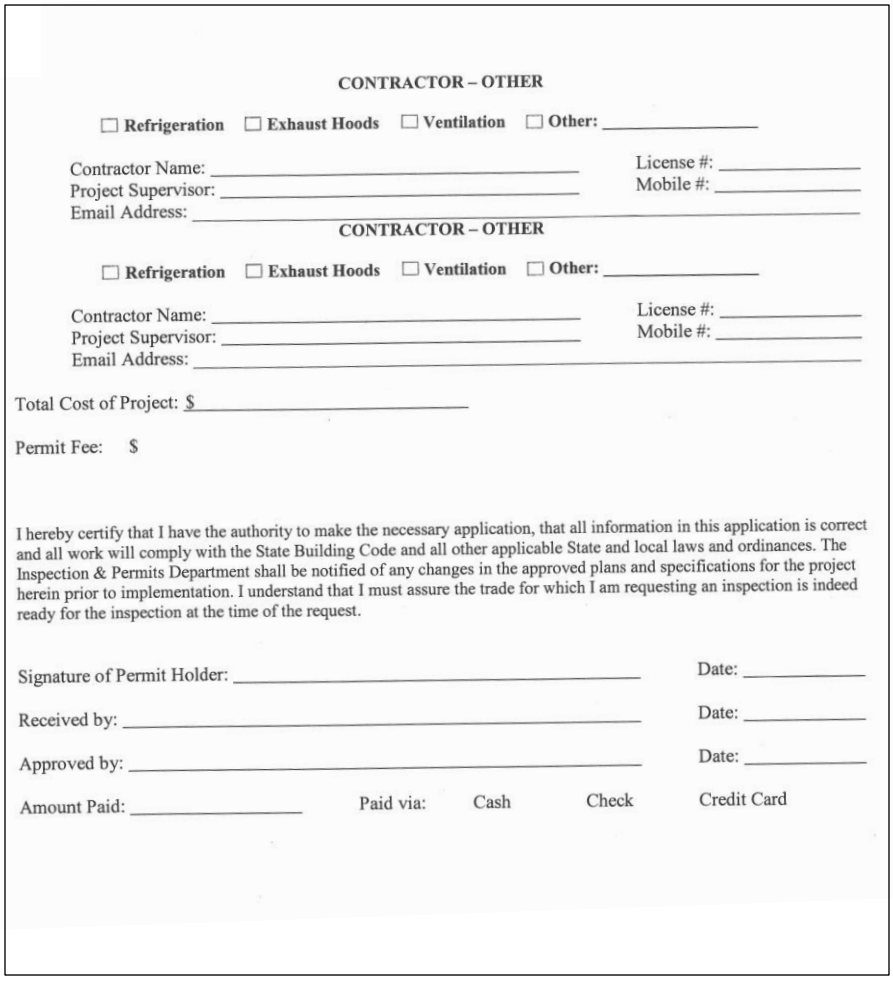
Mechanical Contractor: _____ License #: _____
Project Supervisor: _____ Mobile #: _____
Email Address: _____

ELECTRICAL CONTRACTOR

Electrical Contractor: _____ License #: _____
Project Supervisor: _____ Mobile #: _____
Email Address: _____

FUEL PIPING CONTRACTOR

Fuel Piping Contractor: _____ License #: _____
Project Supervisor: _____ Mobile #: _____
Email Address: _____
Are you installing a gas appliance(s)? ☐ Yes ☐ No *If yes, list appliance(s) below in description*
Description: _____



CONTRACTOR – OTHER

☐ Refrigeration ☐ Exhaust Hoods ☐ Ventilation ☐ Other: _____

Contractor Name: _____ License #: _____
Project Supervisor: _____ Mobile #: _____
Email Address: _____

CONTRACTOR – OTHER

☐ Refrigeration ☐ Exhaust Hoods ☐ Ventilation ☐ Other: _____

Contractor Name: _____ License #: _____
Project Supervisor: _____ Mobile #: _____
Email Address: _____

Total Cost of Project: $_____

Permit Fee: $

I hereby certify that I have the authority to make the necessary application, that all information in this application is correct and all work will comply with the State Building Code and all other applicable State and local laws and ordinances. The Inspection & Permits Department shall be notified of any changes in the approved plans and specifications for the project herein prior to implementation. I understand that I must assure the trade for which I am requesting an inspection is indeed ready for the inspection at the time of the request.

Signature of Permit Holder: _____ Date: _____

Received by: _____ Date: _____

Approved by: _____ Date: _____

Amount Paid: _____ Paid via: Cash Check Credit Card

Residential Super Committee: Motion to accept. Second. Accepted.
Commercial Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion to approve. Second. Granted.

Item B – 4 Request by Stuart Laney representing Laney Electrical Construction, Inc. to amend the 2017 Electrical Code, Section 406.4(D)(4) as follows:

~~**406.4(D)(4)** Arc Fault Circuit Interrupters.~~

~~Where a receptacle outlet is located in any areas specified in 210.12(A) or (B), 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~~

~~Exception No. 1: Arc fault circuit interrupter protection shall not be required where all of the following apply:~~

~~(1) The replacement complies with 406.4(D)(2)(b).~~
~~(2) It is impracticable to provide an equipment a ground conductor as provided by 250.130(C).~~
~~(3) A listed combination type arc fault circuit interrupter circuit breaker is not commercially available.~~
~~(4) GFCI/AFCI dual function receptacles are not commercially available.~~

~~Exception No. 2: Section 210.12(B), Exception shall not apply to replacement of receptacles.~~

Residential Super Committee: Motion to accept. Second. Accepted.
Commercial Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion. Second. Granted.

Item B – 5 Request by Colin Triming representing the North Carolina Fire Code Revision Committee to amend the 2018 NC State Building Code, NC Fire Code 505.1.1 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 number shall match the floor number signage.

Commercial Super Committee: Motion to accept by W. Hamilton. Second. Accepted.
Building Code Council: Motion by W. Hamilton. Second. Granted.

Item B – 6 Request by Terry Cromer representing the North Carolina Association of Electrical Contractors to amend the 2017 NC Electrical Code, Section 210.8(B) as follows:

B Other Than Dwelling Units. All single-phase receptacles rated 150 volts to ground or less, 50 amperes or less ~~and three phase receptacles rated 150 volts to ground or less, 100 amperes or less~~ installed in the following locations shall have ground-fault circuit-interrupter protection for personnel.

Commercial Super Committee: Motion to accept by L. Skinner. Second. Accepted.
Building Code Council: Motion by L. Skinner. Second. Granted.

Item B – 7 Request by Jeff Tiller, PE representing Appalachian State University and Robert Privott representing the North Carolina Home Builders Association to amend the 2018 NC Energy Code, Section R406 Energy Rating Compliance Alternative as follows:

R406.1 Scope.

This section establishes criteria for compliance using an Energy Rating Index (ERI) analysis.

R406.2 Mandatory requirements.

Compliance with this section requires that the provisions identified in Sections R401 through R404 labeled as "mandatory" be met. The building thermal envelope shall be greater than or equal to levels of efficiency and Solar Heat Gain Coefficient in Table R406.2.1 or Table R406.2.2. ~~Table 402.1.1 or 402.1.3 of the 2012 North Carolina Energy Conservation Code.~~ Minimum standards associated with compliance shall be the ANSI RESNET ICC Standard 301-2014: "Standard for the Calculation and Labeling of the Energy Performance of Low-Rise Residential Buildings using an Energy Rating Index." A North Carolina *registered design professional* or certified *HERS rater* is required to perform the analysis if required by North Carolina Licensure laws.

Exception: Supply and return ducts in unconditioned space and outdoors shall be insulated to a minimum R-8. Supply ducts inside semi-conditioned space shall be insulated to a minimum R-4; return ducts inside conditioned and semi-conditioned space are not required to be insulated. Ducts located inside conditioned space are not required to be insulated other than as may be necessary for preventing the formation of condensation on the exterior of cooling ducts.

TABLE R406.2.1
MINIMUM INSULATION AND FENESTRATION REQUIREMENTS FOR ENERGY RATING INDEX COMPLIANCE[a]

	FENESTRATION VALUES			R-VALUES FOR								
CLIMATE ZONE	FENESTRATION U-FACTOR[b,j]	SKYLIGHT[b] U-FACTOR	GLAZED FENESTRATION SHGC[b,k]	CEILING[m]	UNVENTED[p] ENCLOSED RAFTER ASSEMBLIES AIR-IMPERMEABLE	UNVENTED[p] ENCLOSED RAFTER ASSEMBLIES AIR-PERMEABLE/ IMPERMEABLE	WOOD FRAME WALL	MASS WALL[i]	FLOOR	BASEMENT[c,o] WALL	SLAB[d]	CRAWL SPACE[c] WALL
3	0.35	0.65	0.3	30	20	20+5[q]	13	5/10	19	10/13[r]	0	5/13
4	0.35	0.6	0.3	38 or 30ci[l]	20	20+15[q]	15, 13+2.5[h]	5/10	19	10/13	10	10/13
5	0.35	0.6	NR	38 or 30ci[l]	25	15+20[q]	19[n], 13+5[h], or 15+3[h]	13/17	30[g]	10/13	10	10/13

For SI: 1 foot = 304.8 mm.

a. *R*-values are minimums. *U*-factors and SHGC are maximums.

b. The fenestration *U*-factor column excludes skylights. The SHGC column applies to all glazed fenestration.

c. "10/13" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall or crawl space wall.

d. For monolithic slabs, insulation shall be applied from the inspection gap downward to the bottom of the footing or a maximum of 18 inches below grade whichever is less . For floating slabs, insulation shall extend to the bottom of the foundation wall or 24 inches, whichever is less. (See Appendix R2) R-5 shall be added to the required slab edge *R*-values for heated slabs.

e.- Deleted.

f. Basement wall insulation is not required in warm-humid locations as defined by Figure R301.1 and Table R301.1.

g. Or insulation sufficient to fill the framing cavity, R-19 minimum.

h. The first value is cavity insulation, the second value is continuous insulation so "13+5" means R-13 cavity insulation plus R-5 continuous insulation. If structural sheathing covers 25 percent or less of the exterior, insulating sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25 percent of exterior, structural sheathing shall be supplemented with insulated sheathing of at least R-2.

i. The second *R*-value applies when more than half the insulation is on the interior of the mass wall.

j. In addition to the exemption in R402.3.3, a maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.

k. In addition to the exemption in R402.3.3, a maximum of two glazed fenestration product assemblies having a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.

l. R-30 shall be deemed to satisfy the ceiling insulation requirement wherever the full height of uncompressed R-30 insulation extends over the wall top plate at the eaves. Otherwise, R-38 insulation is required where adequate clearance exists or insulation must extend either to the insulation baffle or within 1" of the attic roof deck.

m. Table value required except for roof edge where the space is limited by the pitch of the roof; there the insulation must fill the space up to the air baffle.

n. R -19 fiberglass batts compressed and installed in a nominal 2 × 6 framing cavity is deemed to comply. Fiberglass batts rated R-19 or higher compressed and installed in a 2x4 wall is are not deemed to comply.

o. Basement wall meeting the minimum mass wall specific heat content requirement may use the mass wall R-value as the minimum requirement.

p. The air-impermeable insulation shall meet the requirements of the definition in section. Air-impermeable insulation shall be installed in direct contact with the underside of the structural roof sheathing. For one- and two-family dwellings and townhouses, the insulation installation shall meet the requirements of R806.5 of the North Carolina Residential Code. For Residential Buildings other than one- and two-family dwellings and townhouses, the insulation installation shall meet the installation requirements of 1203.3 of the North Carolina Building Code.

q. The value for air-permeable insulation is shown first and that for air-impermeable insulation second. Thus, R-20 + R-5 indicates that the minimum value for air-permeable insulation is R-20, and the minimum value for air-impermeable insulation is R-5. Air-impermeable insulation shall be installed in direct contact with the underside of the structural roof sheathing. The air-permeable insulation shall be installed directly under the air-permeable insulation.

TABLE R406.2.2
EQUIVALENT U-FACTORS FOR TABLE R406.2.1

CLIMATE ZONE	FENESTRATION[a]	SKYLIGHT	CEILING	UNVENTED[e] ENCLOSED RAFTER ASSEMBLIES AIR-IMPERMEABLE	UNVENTED[e] ENCLOSED RAFTER ASSEMBLIES AIR-PERMEABLE/ IMPERMEABLE	FRAME WALL	MASS WALL[b]	FLOOR	BASEMENT[d] WALL	CRAWL SPACE[c] WALL
3	0.35	0.65	0.0350	0.05	0.04[f]	0.082	0.141	0.047	0.059	0.136
4	0.35	0.60	0.0300	0.05	0.029[f]	0.077	0.141	0.047	0.059	0.065
5	0.35	0.60	0.0300	0.04	0.029[f]	0.061	0.082	0.033	0.059	0.065

a. Nonfenestration *U*-factors shall be obtained from measurement, calculation or an approved source.

b. When more than half the insulation is on the interior, the mass wall *U*-factors shall be a maximum of 0.07 in Climate Zone 3, 0.07 in Climate Zone 4 and 0.054 in Climate Zone 5.

c. Basement wall *U*-factor of 0.360 in warm-humid locations as defined by Figure R301.1 and Table R301.1.

d. A maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 and a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty. When

applying this note and using the REScheck "UA Trade-off" compliance method to allow continued use of the software, the applicable fenestration products shall be modeled as meeting the U-factor of 0.35 and the SHGC of 0.30, as applicable, but the fenestration products' actual U-factor and actual SHGC shall be noted in the comments section of the software for documentation of application of this note to the applicable products. Compliance for these substitute products shall be verified compared to the allowed substituted maximum U-value requirement and maximum SHGC requirement, as applicable.

e. The air-impermeable insulation shall meet the requirements of the definition in section R202. Air-impermeable insulation shall be installed in direct contact with the underside of the structural roof sheathing. For one- and two-family dwellings and townhouses, the insulation installation shall meet the requirements of R806.5 of the North Carolina Residential Code.

f. For air-permeable/ impermeable applications, Table R406.2.1 shall be followed for minimum insulation values.

Residential Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion. Second. Granted.

Item B – 8 Request by Jeff Tiller, PE representing Appalachian State University and Robert Privott representing the North Carolina Home Builders Association to amend the 2018 NC Residential Code, Section N1106 Energy Rating Compliance Alternative as follows:

N1106.1 Scope.

This section establishes criteria for compliance using an Energy Rating Index (ERI) analysis.

N1106.2 Mandatory requirements.

Compliance with this section requires that the provisions identified in Sections N1101 through N1104 labeled as "mandatory" be met. The building thermal envelope shall be greater than or equal to levels of efficiency and Solar Heat Gain Coefficient in Table N1106.2.1 or Table N1106.2.2. ~~Table 402.2.2 or 402.1.3 of the 2012 North Carolina Energy Conservation Code.~~ Minimum standards associated with compliance shall be the ANSI RESNET ICC standard 301-2014: "Standard for the Calculation and Labeling of the Energy Performance of Low-Rise Residential Buildings using an Energy Rating Index." A North Carolina *registered design professional* or certified *HERS rater* is required to perform the analysis if required by North Carolina Licensure laws.

Exception: Supply and return ducts in unconditioned space and outdoors shall be insulated to a minimum R-8. Supply ducts inside semi-conditioned space shall be insulated to a minimum R-4; return ducts inside conditioned and semi-conditioned space are not required to be insulated. Ducts located inside conditioned space are not required to be insulated other than as may be necessary for preventing the formation of condensation on the exterior of cooling ducts.

SECTION N1106
ENERGY RATING INDEX COMPLIANCE ALTERNATIVE

N1106.1 Scope.

This section establishes criteria for compliance using an Energy Rating Index (ERI) analysis.

N1106.2 Mandatory requirements.

Compliance with this section requires that the provisions identified in Sections N1101 through N1104 labeled as "mandatory" be met. The building thermal envelope shall be greater than or equal to levels of efficiency and Solar Heat Gain Coefficient in Table N1106.2.1 or Table N1106.2.2. ~~Table 402.1.1 or 402.1.3 of the 2012 North Carolina Energy Conservation Code.~~ Minimum standards associated with compliance shall be the ANSI RESNET ICC Standard 301-2014: "Standard for the Calculation and Labeling of the Energy Performance of Low-Rise Residential Buildings using an Energy Rating Index." A North Carolina *registered design professional* or certified *HERS rater* is required to perform the analysis if required by North Carolina Licensure laws.

Exception: Supply and return ducts in unconditioned space and outdoors shall be insulated to a minimum R-8. Supply ducts inside semi-conditioned space shall be insulated to a minimum R-4; return ducts inside conditioned and semi-conditioned space are not required to be insulated. Ducts located inside conditioned space are not required to be insulated other than as may be necessary for preventing the formation of condensation on the exterior of cooling ducts.

TABLE N1106.2.1
MINIMUM INSULATION AND FENESTRATION REQUIREMENTS FOR ENERGY RATING INDEX COMPLIANCE[a]

	FENESTRATION VALUES			R-VALUES FOR								
CLIMATE ZONE	FENESTRATION U-FACTOR[b,j]	SKYLIGHT[b] U-FACTOR	GLAZED FENESTRATION SHGC[b,k]	CEILING[m]	UNVENTED[p] ENCLOSED RAFTER ASSEMBLIES AIR-IMPERMEABLE	UNVENTED[p] ENCLOSED RAFTER ASSEMBLIES AIR-PERMEABLE/ IMPERMEABLE	WOOD FRAME WALL	MASS WALL[l]	FLOOR	BASEMENT[c,o] WALL	SLAB[d]	CRAWL SPACE[e] WALL
3	0.35	0.65	0.3	30	20	20+5[q]	13	5/10	19	10/13[f]	0	5/13
4	0.35	0.6	0.3	38 or 30ci[l]	20	20+15[q]	15, 13+2.5[h]	5/10	19	10/13	10	10/13
5	0.35	0.6	NR	38 or 30ci[l]	25	15+20[q]	19[n], 13+5[h], or 15+3[h]	13/17	30[g]	10/13	10	10/13

For SI: 1 foot = 304.8 mm.

a. *R*-values are minimums. *U*-factors and SHGC are maximums.

b. The fenestration *U*-factor column excludes skylights. The SHGC column applies to all glazed fenestration.

c. "10/13" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall or crawl space wall.

d. For monolithic slabs, insulation shall be applied from the inspection gap downward to the bottom of the footing or a maximum of 18 inches below grade whichever is less. For floating slabs, insulation shall extend to the bottom of the foundation wall or 24 inches, whichever is less. (See Appendix O) R-5 shall be added to the required slab edge *R*-values for heated slabs.

e.- Deleted.

f. Basement wall insulation is not required in warm-humid locations as defined by Figure N1101.7 and Table N1101.7.

g. Or insulation sufficient to fill the framing cavity, R-19 minimum.

h. The first value is cavity insulation, the second value is continuous insulation so "13+5" means R-13 cavity insulation plus R-5 continuous insulation. If structural sheathing covers 25 percent or less of the exterior, insulating sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25 percent of exterior, structural sheathing shall be supplemented with insulated sheathing of at least R-2.

i. The second *R*-value applies when more than half the insulation is on the interior of the mass wall.

j. In addition to the exemption in N1102.3.3, a maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.

k. In addition to the exemption in N1102.3.3, a maximum of two glazed fenestration product assemblies having a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.

l. R-30 shall be deemed to satisfy the ceiling insulation requirement wherever the full height of uncompressed R-30 insulation extends over the wall top plate at the eaves. Otherwise, R-38 insulation is required where adequate clearance exists or insulation must extend either to the insulation baffle or within 1" of the attic roof deck.

m. Table value required except for roof edge where the space is limited by the pitch of the roof; there the insulation must fill the space up to the air baffle.

n. R -19 fiberglass batts compressed and installed in a nominal 2 × 6 framing cavity is deemed to comply. Fiberglass batts rated R-19 or higher compressed and installed in a 2x4 wall is are not deemed to comply.

o. Basement wall meeting the minimum mass wall specific heat content requirement may use the mass wall R-value as the minimum requirement.

p. The air-impermeable insulation shall meet the requirements of the definition in section R202. Air-impermeable insulation shall be installed in direct contact with the underside of the structural roof sheathing. The insulation installation shall meet the requirements of R806.5.

q. The value for air-permeable insulation is shown first and that for air-impermeable insulation second. Thus, R-20 + R-5 indicates that the minimum value for air-permeable insulation is R-20, and the minimum value for air-impermeable insulation is R-5. Air-impermeable insulation shall be installed in direct contact with the underside of the structural roof sheathing. The air permeable insulation shall be installed directly under the air permeable insulation.

TABLE N1106.2.2
EQUIVALENT U-FACTORS FOR TABLE N1106.2.1[a]

CLIMATE ZONE	FENESTRATION[d]	SKYLIGHT	CEILING	UNVENTED[e] ENCLOSED RAFTER ASSEMBLIES AIR-IMPERMEABLE	UNVENTED[e] ENCLOSED RAFTER ASSEMBLIES AIR-PERMEABLE/ IMPERMEABLE	FRAME WALL	MASS WALL[b]	FLOOR	BASEMENT[d] WALL	CRAWL SPACE[c] WALL
3	0.35	0.65	0.0350	0.05	0.04[f]	0.082	0.141	0.047	0.059	0.136
4	0.35	0.60	0.0300	0.05	0.029[f]	0.077	0.141	0.047	0.059	0.065
5	0.35	0.60	0.0300	0.04	0.029[f]	0.061	0.082	0.033	0.059	0.065

a. Nonfenestration *U*-factors shall be obtained from measurement, calculation or an approved source.

b. When more than half the insulation is on the interior, the mass wall *U*-factors shall be a maximum of 0.07 in Climate Zone 3, 0.07 in Climate Zone 4 and 0.054 in Climate Zone 5.

c. Basement wall *U*-factor of 0.360 in warm-humid locations as defined by Figure N1101.7 and Table N1101.7.

d. A maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 and a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty. When applying this note and using the REScheck "UA Trade-off" compliance method to allow continued use of the software, the applicable fenestration products shall be modeled as meeting the U-factor of 0.35 and the SHGC of 0.30, as applicable, but the fenestration products' actual U-factor and actual SHGC shall be noted in the comments section of the software for documentation of

application of this note to the applicable products. Compliance for these substitute products shall be verified compared to the allowed substituted maximum U-value requirement and maximum SHGC requirement, as applicable.

e. The air-impermeable insulation shall meet the requirements of the definition in section R202. Air-impermeable insulation shall be installed in direct contact with the underside of the structural roof sheathing. The insulation shall meet the requirements of R806.5.

f. For air-permeable/ impermeable applications, Table N1106.2.1 shall be followed for minimum insulation values.

Residential Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion. Second. Granted.

Item B – 9 Request by Jeff Tiller, PE representing Appalachian State University and Robert Privott representing the North Carolina Home Builders Association to amend the 2018 Residential Code, Section 2 Definitions and the 2018 Energy Code, Section 2 Definitions as follows:

AIR-IMPERMEABLE INSULATION. An insulation having an air permanence equal to or less than 0.02 L/s-m^2 at 75 Pa pressure differential tested according to ASTM E 217 or E 283.

Residential Super Committee: Motion to accept for Residential Code. Second. Accepted.
Building Code Council: Motion. Second. Granted.
Residential Super Committee: Motion to accept for Energy Code. Second. Accepted.
Building Code Council: Motion. Second. Granted.

Item B – 10 Request by Robert Privott representing the North Carolina Home Builders Association to amend the 2018 Residential Code, Section R506.2.1 as follows:

R506.2.1 Fill. Fill material shall be free of vegetation and foreign material. The fill shall be compacted to ensure uniform support of the slab, and except where *approved*, the fill depths shall not exceed 24 inches (610 mm) for clean sand or gravel and 8 inches (203 mm) for earth.

Exception: #57 stone, ABC stone or crusher run may be used as fill without compaction for a maximum depth of four (4) feet.

Residential Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion. Second. Granted.

Item B – 11 Request by Keith Rogers representing the North Carolina Building Code Council Mechanical Standing Committee to amend the 2018 NC Plumbing Code, Section 305.4 as follows:

305.4 Freezing. Water pipes install in a wall exposed to the exterior shall be located on the heated side of the wall insulation. Water~~, soil,~~ and condensate waste pipes shall not be installed outside of a building, in

unconditioned attics, unconditioned utility rooms, or in any other place subjected to freezing temperatures unless adequate provision is made to protect such pipes from freezing by a minimum of R6.5 insulation determined at 75°F (24°C) in accordance with ASTM C177 or heat or both. Exterior water supply system piping shall be installed ~~not less than 6 inches (152 mm)~~ below the frost line and not less than 12 inches (305 mm) below grade.

Note: These provisions are minimum requirements, which have been found suitable for normal weather conditions. Abnormally low temperatures for extended periods may require additional provisions to prevent freezing.

305.4.1 Frost Protection. No traps of soil or waste pipe shall be installed or permitted outside of a building or concealed in outside walls or in any place where they may be subjected to freezing temperatures, unless *approved* provisions are made to protect them from freezing.

305.4.2 Sewer depth. *Building Sewers* that connect to private sewage disposal systems shall be installed not less than 3 inches (76.2 mm) below finished grade at the point of septic tank connection. *Building sewers* shall be installed not less than 3 inches (76.2 mm) below grade.

Commercial Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion. Second. Granted.

The Residential proposal will come separately.

Item B – 12 Request by Ralph Euchner representing the North Carolina Building Code Council to amend the 2018 NC Plumbing Code, Section 306.2.4 Tracer Wire as follows:

306.2.4 Tracer wire. For plastic sewer *piping*, an insulated copper tracer wire or other *approved* conductor shall be installed adjacent to and over the full length of the *piping*. Access shall be provided to the tracer wire or the tracer wire shall terminate at the cleanout between the building drain and building sewer. The tracer wire size shall be not less than 14 AWG and the insulation type shall be listed for direct burial.

Commercial Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion. Second. Granted.

Item B – 13 Request by Gary Embler representing the North Carolina Building Code Council to amend the 2018 NC Energy Code, Table 402.1.2 and Table 402.1.4 as follows:

R402.1.2 Insulation and fenestration criteria.
The *building thermal envelope* shall meet the requirements of Table R402.1.2, based on the climate zone specified in Chapter 3.

TABLE R402.1.2
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT[a]

CLIMATE ZONE	FENESTRATION *U*-FACTOR[b, j]	SKYLIGHT *U*-FACTOR[b]	GLAZED FENESTRATION SHGC[b, k]	CEILING *R*-VALUE[m]	WOOD FRAME WALL *R*-VALUE	MASS WALL *R*-VALUE[i]	FLOOR *R*-VALUE	BASEMENT WALL *R*-VALUE[c,o]	SLAB *R*-VALUE & DEPTH[d]	CRAWL SPACE WALL *R*-VALUE[c]
3	0.35	~~0.55~~ 0.65	0.30	30 ~~38 or 30ci[l]~~	13 ~~15 or 13+2.5~~[h]	~~5/13 or 5/10ci~~ 5/10	19	10 ~~5/13~~[f]	0	5/13
4	0.35	0.55	0.30	38 or 30ci[l]	15 or 13+2.5[h]	5/13 or 5/10ci	19	10 / 15	10[d]	10/ 15
5	0.35	0.55	NR	38 or 30ci[l]	19[n] or 13+5[h] Or 15+3[h]	13/17 or 13/12.5ci	30[g]	10/ 15	10[d]	10 / 19

For SI: 1 foot = 304.8 mm.

a. R-values are minimums. *U*-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed *R*-value of the insulation shall not be less than the *R*-value specified in the table.
b. The fenestration *U*-factor column excludes skylights. The SHGC column applies to all glazed fenestration.
c. "10/15" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-15 cavity insulation at the interior of the basement wall or crawl space wall. "
d. For monolithic slabs, insulation shall be applied from the inspection gap downward to the bottom of the footing or a maximum of 24 inches below grade whichever is less. For floating slabs, insulation shall extend to the bottom of the foundation wall or 24 inches, whichever is less. (See Appendix 2) R-5 shall be added to the required slab edge *R*-values for heated slabs
e. Deleted.
f. Basement wall insulation is not required in warm-humid locations as defined by Figure R301.1 and Table R301.1.
g. Or insulation sufficient to fill the framing cavity, R-19 minimum.
h. The first value is cavity insulation, the second value is continuous insulation, so "13+5" means R-13 cavity insulation plus R-5 continuous insulation. If structural sheathing covers 25 percent or less of the exterior, insulating sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25 percent of exterior, structural sheathing shall be supplemented with insulated sheathing of at least R-2.
i. The second *R*-value applies when more than half the insulation is on the interior of the mass wall.
j. In addition to the exemption in Section R402.3.3, a maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.

k. In addition to the exemption in Section R402.3.3, a maximum of two glazed fenestration product assemblies having a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.
l. R-30 shall be deemed to satisfy the ceiling insulation requirement wherever the full height of uncompressed R-30 insulation extends over the wall top plate at the eaves. Otherwise R-38 insulation is required where adequate clearance exists or insulation must extend to either the insulation baffle or within 1" of the attic roof deck.

m. Table value required except for roof edge where the space is limited by the pitch of the roof, there the insulation must fill the space up to the air baffle.
n. R -19 fiberglass batts compressed and installed in a nominal 2 × 6 framing cavity is deemed to comply. Fiberglass batts rated R-19 or higher compressed and installed in a 2x4 wall is not deemed to comply.
o. Basement wall meeting the minimum mass wall specific heat content requirement may use the mass wall R-value as the minimum requirement.

R402.1.4 *U*-factor alternative.
An assembly with a *U*-factor equal to or less than that specified in Table R402.1.4 shall be permitted as an alternative to the *R*-value in Table R402.1.2.

TABLE R402.1.4
EQUIVALENT U-FACTORS[a]

CLIMATE ZONE	FENESTRATION *U*-FACTOR [d]	SKYLIGHT *U*-FACTOR	CEILING *U*-FACTOR	FRAME WALL *U*-FACTOR	MASS WALL *U*-FACTOR[b]	FLOOR *U*-FACTOR	BASEMENT WALL *U*-FACTOR	CRAWL SPACE WALL *U*-FACTOR
3	0.35	~~0.55~~ 0.65	~~0.030~~ 0.035	~~0.077~~ 0.082	0.141	0.047	~~0.091~~[c] 0.059[c]	0.136
4	0.35	0.55	0.030	0.077	0.141	0.047	0.059	0.065
5	0.35	0.55	0.030	0.061	0.082	0.033	0.059	0.065

a. Nonfenestration *U*-factors shall be obtained from measurement, calculation or an approved source.
b. When more than half the insulation is on the interior, the mass wall U-factors shall be a maximum of 0.07 in Climate Zone 3, 0.07 in Climate Zone 4, and 0.054 in Climate Zone 5.
c. Basement wall *U*-factor of 0.360 in warm-humid locations as defined by Figure R301.1 and Table R301.1.
d. A maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 and a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty. When applying this note and using the REScheck "UA Trade-off" compliance method to allow continued use of the software, the applicable fenestration products shall be modeled as meeting the U-factor of 0.35 and the SHGC of 0.30, as applicable, but the fenestration products actual U-factor and actual SHGC shall be noted in the comments section of the software for documentation of application of this note to the applicable products. Compliance for these substitute products shall be verified compared to the allowed substituted maximum U-value requirement and maximum SHGC requirement, as applicable.

Residential Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion. Second. Granted.

[NOTE: A fiscal note is required before publication in the NC Register.]

Item B – 14 Request by Gary Embler representing the North Carolina Building Code Council to amend the 2018 NC Residential Code, Table N1102.1.2 and Table N1102.1.4 as follows:

N1102.1.2 Insulation and fenestration criteria.
The *building thermal envelope* shall meet the requirements of Table N1102.1.2, based on the climate zone specified in N1101.7.

TABLE N1102.1.2
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT[a]

CLIMATE ZONE	FENESTRATION *U*-FACTOR[b, j]	SKYLIGHT *U*-FACTOR[b]	GLAZED FENESTRATION SHGC[b, k]	CEILING *R*-VALUE[m]	WOOD FRAME WALL *R*-VALUE	MASS WALL *R*-VALUE[i]	FLOOR *R*-VALUE	BASEMENT WALL *R*-VALUE[c,o]	SLAB *R*-VALUE & DEPTH[d]	CRAWL SPACE WALL *R*-VALUE[c]
3	0.35	~~0.55~~ 0.65	0.30	30 ~~38 or 30ci[l]~~	13 ~~15 or 13+2.5[h]~~	~~5 /13 or 5/10ci~~ 5/10	19	10 ~~5/13~~[f]	0	5/13
4	0.35	0.55	0.30	38 or 30ci[l]	15 or 13+2.5[h]	5 /13 or 5/10ci	19	10 / 15	10[d]	10/ 15
5	0.35	0.55	NR	38 or 30ci[l]	19[n] or 13+5 Or 15+3[h]	13/17 or 13/12.5ci	30[g]	10/ 15	10[d]	10 / 19

For SI: 1 foot = 304.8 mm.

a. R-values are minimums. *U*-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed *R*-value of the insulation shall not be less than the *R*-value specified in the table.
b. The fenestration *U*-factor column excludes skylights. The SHGC column applies to all glazed fenestration.
c. "10/15" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-15 cavity insulation at the interior of the basement wall or crawl space wall. "
d. R-5 shall be added to the required slab edge *R*-values for heated slabs. For monolithic slabs, insulation shall be applied from the inspection gap downward to the bottom of the footing or a maximum of 24 inches below grade whichever is less . For floating slabs, insulation shall extend to the bottom of the foundation wall or 24 inches, whichever is less. (See Appendix O)
e. Deleted.
f. Basement wall insulation is not required in warm-humid locations as defined by Figure N1101.7 and Table N1101.7.
g. Or insulation sufficient to fill the framing cavity, R-19 minimum.
h. The first value is cavity insulation, the second value is continuous insulation, so "13+5" means R-13 cavity insulation plus R-5 continuous insulation. If structural sheathing covers 25 percent or less of the exterior, insulating sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25 percent of exterior, structural sheathing shall be supplemented with insulated sheathing of at least R-2.
i. The second *R*-value applies when more than half the insulation is on the interior of the mass wall.
j. In addition to the exemption in Section N1102.3.3, a maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.
k. In addition to the exemption in Section N1102.3.3, a maximum of two glazed fenestration product assemblies having a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.
l. R-30 shall be deemed to satisfy the ceiling insulation requirement wherever the full height of uncompressed R-30 insulation extends over the wall top plate at the eaves. Otherwise R-38 insulation is required where adequate clearance exists or insulation must extend to either the insulation baffle or within 1" of the attic roof deck.
m. Table value required except for roof edge where the space is limited by the pitch of the roof, there the insulation must fill the space up to the air baffle.

n. R -19 fiberglass batts compressed and installed in a nominal 2 × 6 framing cavity is deemed to comply. Fiberglass batts rated R-19 or higher compressed and installed in a 2x4 wall is not deemed to comply.
o. Basement wall meeting the minimum mass wall specific heat content requirement may use the mass wall R-value as the minimum requirement.

N1102.1.4 *U*-factor alternative.
An assembly with a *U*-factor equal to or less than that specified in Table N1102.1.4 shall be permitted as an alternative to the *R*-value in Table N1102.1.2.

TABLE N1102.1.4
EQUIVALENT U-FACTORS[a]

CLIMATE ZONE	FENESTRATION *U*-FACTOR [d]	SKYLIGHT *U*-FACTOR	CEILING *U*-FACTOR	FRAME WALL *U*-FACTOR	MASS WALL *U*-FACTOR[b]	FLOOR *U*-FACTOR	BASEMENT WALL *U*-FACTOR	CRAWL SPACE WALL *U*-FACTOR
3	0.35	~~0.55~~ 0.65	~~0.030~~ 0.035	~~0.077~~ 0.082	0.141	0.047	~~0.091~~[c] 0.059[c]	0.136
4	0.35	0.55	0.030	0.077	0.141	0.047	0.059	0.065
5	0.35	0.55	0.030	0.061	0.082	0.033	0.059	0.065

a. Nonfenestration *U*-factors shall be obtained from measurement, calculation or an approved source.
b. When more than half the insulation is on the interior, the mass wall U-factors shall be a maximum of 0.07 in Climate Zone 3, 0.07 in Climate Zone 4, and 0.054 in Climate Zone 5.
c. Basement wall *U*-factor of 0.360 in warm-humid locations as defined by Figure N1101.7 and Table N1101.7.
d. A maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 and a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty. When applying this note and using the REScheck "UA Trade-off" compliance method to allow continued use of the software, the applicable fenestration products shall be modeled as meeting the U-factor of 0.35 and the SHGC of 0.30, as applicable, but the fenestration products actual U-factor and actual SHGC shall be noted in the comments section of the software for documentation of application of this note to the applicable products. Compliance for these substitute products shall be verified compared to the allowed substituted maximum U-value requirement and maximum SHGC requirement, as applicable.

Residential Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion. Second. Granted.

[NOTE: A fiscal note is required before publication in the NC Register.]

Item B – 15 Request by Jesse Wade White, Jr., PE representing the North Carolina Building Code Council Electrical Ad Hoc Committee to amend the 2017 NC Electrical Code, Section 695.3 as follows:

Amendment 695.3

Amend NEC 2017, page 575:

695.3 Power Source(s) for Electric Motor-Driven Fire Pumps.
Electric motor-driven fire pumps shall have a reliable source of power.
~~Informational Note: See Sections 9.3.2 and A.9.3.2 from NFPA 20-2019, *Standard for the Installation of Stationary Pumps for Fire Protection*, for guidance on the determination of power source reliability.~~

Replace with:

695.3 Power Source(s) for Electric Motor-Driven Fire Pumps. Electric motor-driven fire pumps shall have a reliable source of power.

Commercial Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion. Second. Granted.

Item B – 16 Request by Jesse Wade White, Jr., PE representing the NC Building Code Council Electrical Ad Hoc Committee to amend the 2017 NC Electrical Code, Section 695.2 as follows:

Amendment 695.2

Amend NEC 2017, page 575:

695.2 **Definitions.**

Fault-Tolerant External Control Circuits. Those control circuits either entering or leaving the fire pump controller enclosure, which if broken, disconnected, or shorted will not prevent the controller from starting the fire pump from all other internal or external means and may cause the controller to start the pump under these conditions.

On-Site Power Production Facility. The normal supply of electric power for the site that is expected to be constantly producing power.

On-Site Standby Generator: A facility producing electric power on site as the alternate supply of electric power. It differs from an on-site power production facility, in that it is not constantly producing power.

Replace with:

695.2 Definitions.

Fault-Tolerant External Control Circuits. Those control circuits either entering or leaving the fire pump controller enclosure, which if broken, disconnected, or shorted will not prevent the controller from starting the fire pump from all other internal or external means and may cause the controller from starting the fire pump from all other internal or external means and may cause the controller to start the pump under these conditions.

On-Site Power Production Facility. The normal supply electric power for the site that is expected to be constantly producing power.

On-Site Standby Generator. A facility producing electric power on site as the alternate supply of electric power. It differs from an on-site power production facility, in that it is not constantly producing power.

Reliable Source of Power. A source of power that possess all of the following characteristics:

(1) The electric utility supplying the power has not conducted any intentional shut downs longer than 10 continuous hours in the year prior to the plan submittal and is verified in writing by that electric utility.

(2) The source of power is not supplied by overhead conductors within 60 feet of the building(s) equipped with fire pump(s).
(3) Only the disconnect switches and overcurrent protection devices permitted in Article 695 and NFPA 20-2013 section 9.3.2 are installed in the normal source of power to the fire pump controller.

Commercial Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion. Second. Granted.

Item B – 17 Request by David Smith representing the North Carolina Building Code Council Residential Committee to amend the 2018 NC Residential Code, Section R703.7.2.1 Support by steel angle as follows:

R703.2.1 Support by steel angle. A minimum 6 inches by 4 inches by 5/16 inch (152 mm by 102 mm by 8 mm) steel angle, with the long leg placed vertically, shall be anchored to double 2 inches by 4 inches (51 mm by 102 mm) wood studs at a maximum on-center spacing of 16 inches (406 mm) or shall be anchored to solid double 2x blocking firmly attached between single 2-inch by 4-inch (51 mm by 102 mm) wood studs at a maximum on center spacing of 16 inches (406 mm). Anchorage of the steel angle at every double stud spacing shall be a minimum of two 7/16 inch (11 mm) diameter by 4 inch (102 mm) lag screws at every double stud or shall be a minimum of two 7/16-inch diameter (11.1 mm) by 4 inches (102 mm) lag screws into solid double blocking with each pair of lag screws spaced at horizontal intervals not to exceed 16 inches (406 mm). The steel angle shall have a minimum clearance to underlying construction of 1/16 inch (2 mm). A minimum of two-thirds the width of the masonry veneer thickness shall bear on the steel angle. Flashing and weep holes shall be located in the masonry veneer wythe in accordance with Figure R703.7.2.1. The maximum height of masonry veneer above the steel angle support shall be 12 feet, 8 inches (3861 mm). The air space separating the masonry veneer from the wood backing shall be in accordance with Sections R703.7.4 and R703.7.4.2. The method of support for the masonry veneer on steel angle shall be constructed in accordance with Figure R703.7.2.1.

The maximum slope of the roof construction without stops shall be 7:12. Roof construction with slopes greater than 7:12 but not more than 12:12 shall have stops of a minimum 3 inch _3 inch_1/4 inch (76 mm _ 76 mm_6 mm) steel plate welded to the angle at 24 inches (610 mm) on center along the angle or as *approved* by the *building official.*

Residential Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion. Second. Granted.

Item B – 18 Request by David Smith representing the North Carolina Building Code Council Residential Committee to amend the 2018 NC Residential Code, Section R403.1.6 as follows:

Exceptions:

1. Walls 24 inches (610 mm) total length or shorter connecting offset braced wall panels shall be anchored to the foundation with a minimum of one anchor bolt located in the center third of the plate section and shall be attached to adjacent braced wall panels at corners as shown in Table R602.3(1) and Figure R602.10.3(5).

2. Connection of walls 12 inches (305 mm) total length or shorter connecting offset braced wall panels to the foundation without anchor bolts shall be permitted. The wall shall be attached to adjacent braced wall panels at corners as shown in Table R602.3(1) and Figure R602.10.3(5).

Residential Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion. Second. Granted.

Item B – 19 Request by David Smith representing the North Carolina Building Code Council Residential Committee to amend the 2018 NC Residential Code, Table R602.7(1) and R602.7(2) as follows:

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R602.7(1)

TABLE ~~R502.5(1)~~

GIRDER SPANS[a,b] AND HEADER SPANS[a,b] FOR EXTERIOR BEARING WALLS
(Maximum spans for Douglas fir-larch, hem-fir, southern pine and spruce-pine-fir[b] and required number of jack studs)

GIRDERS AND HEADERS SUPPORTING	SIZE	GROUND SNOW LOAD (psf)[e]																	
		30						50						70					
		Building width[c] (feet)																	
		20		28		36		20		28		36		20		28		36	
		Span	NJ[d]	Span	NJ[d]	Span	NJ[d]	Span	NJ[d]	Span	NJ[d]	Span	NJ[d]	Span	NJ[d]	Span	NJ[d]	Span	NJ[d]
Roof and ceiling	2-2×4	3-6	1	3-2	1	2-10	1	3-2	1	2-9	1	2-6	1	2-10	1	2-6	1	2-3	1
	2-2×6	5-5	1	4-8	1	4-2	1	4-8	1	4-1	1	3-8	2	4-2	1	3-8	2	3-3	2
	2-2×8	6-10	1	5-11	2	5-4	2	5-11	2	5-2	2	4-7	2	5-4	2	4-7	2	4-1	2
	2-2×10	8-5	2	7-3	2	6-6	2	7-3	2	6-3	2	5-7	2	6-6	2	5-7	2	5-0	2
	2-2×12	9-9	2	8-5	2	7-6	2	8-5	2	7-3	2	6-6	2	7-6	2	6-6	2	5-10	3
	3-2×8	8-4	1	7-5	1	6-8	1	7-5	1	6-5	2	5-9	2	6-8	1	5-9	2	5-2	2
	3-2×10	10-6	1	9-1	2	8-2	2	9-1	2	7-10	2	7-0	2	8-2	2	7-0	2	6-4	2
	3-2×12	12-2	2	10-7	2	9-5	2	10-7	2	9-2	2	8-2	2	9-5	2	8-2	2	7-4	2
	4-2×8	9-2	1	8-4	1	7-8	1	8-4	1	7-5	1	6-8	1	7-8	1	6-8	1	5-11	2
	4-2×10	11-8	1	10-6	1	9-5	2	10-6	1	9-1	2	8-2	2	9-5	2	8-2	2	7-3	2
	4-2×12	14-1	1	12-2	2	10-11	2	12-2	2	10-7	2	9-5	2	10-11	2	9-5	2	8-5	2
Roof, ceiling and one center-bearing floor	2-2×4	3-1	1	2-9	1	2-5	1	2-9	1	2-5	1	2-2	1	2-7	1	2-3	1	2-0	1
	2-2×6	4-6	1	4-0	1	3-7	2	4-1	1	3-7	2	3-3	2	3-9	2	3-3	2	2-11	2
	2-2×8	5-9	2	5-0	2	4-6	2	5-2	2	4-6	2	4-1	2	4-9	2	4-2	2	3-9	2
	2-2×10	7-0	2	6-2	2	5-6	2	6-4	2	5-6	2	5-0	2	5-9	2	5-1	2	4-7	3
	2-2×12	8-1	2	7-1	2	6-5	2	7-4	2	6-5	2	5-9	3	6-8	2	5-10	3	5-3	3
	3-2×8	7-2	1	6-3	2	5-8	2	6-5	2	5-8	2	5-1	2	5-11	2	5-2	2	4-8	2
	3-2×10	8-9	2	7-8	2	6-11	2	7-11	2	6-11	2	6-3	2	7-3	2	6-4	2	5-8	2
	3-2×12	10-2	2	8-11	2	8-0	2	9-2	2	8-0	2	7-3	2	8-5	2	7-4	2	6-7	2
	4-2×8	8-1	1	7-3	1	6-7	1	7-5	1	6-6	1	5-11	2	6-10	1	6-0	2	5-5	2
	4-2×10	10-1	1	8-10	2	8-0	2	9-1	2	8-0	2	7-2	2	8-4	2	7-4	2	6-7	2
	4-2×12	11-9	2	10-3	2	9-3	2	10-7	2	9-3	2	8-4	2	9-8	2	8-6	2	7-7	2
Roof, ceiling and one clear span floor	2-2×4	2-8	1	2-4	1	2-1	1	2-7	1	2-3	1	2-0	1	2-5	1	2-1	1	1-10	1
	2-2×6	3-11	1	3-5	2	3-0	2	3-10	2	3-4	2	3-0	2	3-6	2	3-1	2	2-9	2
	2-2×8	5-0	2	4-4	2	3-10	2	4-10	2	4-2	2	3-9	2	4-6	2	3-11	2	3-6	2
	2-2×10	6-1	2	5-3	2	4-8	2	5-11	2	5-1	2	4-7	3	5-6	2	4-9	2	4-3	3
	2-2×12	7-1	2	6-1	3	5-5	3	6-10	2	5-11	3	5-4	3	6-4	2	5-6	3	5-0	3
	3-2×8	6-3	2	5-5	2	4-10	2	6-1	2	5-3	2	4-8	2	5-7	2	4-11	2	4-5	2
	3-2×10	7-7	2	6-7	2	5-11	2	7-5	2	6-5	2	5-9	2	6-10	2	6-0	2	5-4	2
	3-2×12	8-10	2	7-8	2	6-10	2	8-7	2	7-5	2	6-8	2	7-11	2	6-11	2	6-3	2
	4-2×8	7-2	1	6-3	2	5-7	2	7-0	1	6-1	2	5-5	2	6-6	1	5-8	2	5-1	2
	4-2×10	8-9	2	7-7	2	6-10	2	8-7	2	7-5	2	6-7	2	7-11	2	6-11	2	6-2	2
	4-2×12	10-2	2	8-10	2	7-11	2	9-11	2	8-7	2	7-8	2	9-2	2	8-0	2	7-2	2
Roof, ceiling and two center-bearing floors	2-2×4	2-7	1	2-3	1	2-0	1	2-6	1	2-2	1	1-11	1	2-4	1	2-0	1	1-9	1
	2-2×6	3-9	2	3-3	2	2-11	2	3-8	2	3-2	2	2-10	2	3-5	2	3-0	2	2-8	2
	2-2×8	4-9	2	4-2	2	3-9	2	4-7	2	4-0	2	3-8	2	4-4	2	3-9	2	3-5	2
	2-2×10	5-9	2	5-1	2	4-7	3	5-8	2	4-11	2	4-5	3	5-3	2	4-7	3	4-2	3
	2-2×12	6-8	2	5-10	3	5-3	3	6-6	2	5-9	3	5-2	3	6-1	3	5-4	3	4-10	3
	3-2×8	5-11	2	5-2	2	4-8	2	5-9	2	5-1	2	4-7	2	5-5	2	4-9	2	4-3	2
	3-2×10	7-3	2	6-4	2	5-8	2	7-1	2	6-2	2	5-7	2	6-7	2	5-9	2	5-3	2
	3-2×12	8-5	2	7-4	2	6-7	2	8-2	2	7-2	2	6-5	3	7-8	2	6-9	2	6-1	3
	4-2×8	6-10	1	6-0	2	5-5	2	6-8	1	5-10	2	5-3	2	6-3	2	5-6	2	4-11	2
	4-2×10	8-4	2	7-4	2	6-7	2	8-2	2	7-2	2	6-5	2	7-7	2	6-8	2	6-0	2
	4-2×12	9-8	2	8-6	2	7-8	2	9-5	2	8-3	2	7-5	2	8-10	2	7-9	2	7-0	2

(continued)

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R602.7(1)

TABLE ~~R502.5(1)~~ —continued
GIRDER SPANS[a,b] AND HEADER SPANS[a,b] FOR EXTERIOR BEARING WALLS
(Maximum spans for Douglas fir-larch, hem-fir, southern pine and spruce-pine-fir[b] and required number of jack studs)

GIRDERS AND HEADERS SUPPORTING	SIZE	GROUND SNOW LOAD (psf)[e]																	
		30						50						70					
		Building width[c] (feet)																	
		20		28		36		20		28		36		20		28		36	
		Span	NJ[d]	Span	NJ[d]	Span	NJ[d]	Span	NJ[d]	Span	NJ[d]	Span	NJ[d]	Span	NJ[d]	Span	NJ[d]	Span	NJ[d]
Roof, ceiling, and two clear span floors 	2-2×4	2-1	1	1-8	1	1-6	2	2-0	1	1-8	1	1-5	2	2-0	1	1-8	1	1-5	2
	2-2×6	3-1	2	2-8	2	2-4	2	3-0	2	2-7	2	2-3	2	2-11	2	2-7	2	2-3	2
	2-2×8	3-10	2	3-4	2	3-0	3	3-10	2	3-4	2	2-11	3	3-9	2	3-3	2	2-11	3
	2-2×10	4-9	2	4-1	3	3-8	3	4-8	2	4-0	3	3-7	3	4-7	3	4-0	3	3-6	3
	2-2×12	5-6	3	4-9	3	4-3	3	5-5	3	4-8	3	4-2	3	5-4	3	4-7	3	4-1	4
	3-2×8	4-10	2	4-2	2	3-9	2	4-9	2	4-1	2	3-8	2	4-8	2	4-1	2	3-8	2
	3-2×10	5-11	2	5-1	2	4-7	3	5-10	2	5-0	2	4-6	3	5-9	2	4-11	2	4-5	3
	3-2×12	6-10	2	5-11	3	5-4	3	6-9	2	5-10	3	5-3	3	6-8	2	5-9	3	5-2	3
	4-2×8	5-7	2	4-10	2	4-4	2	5-6	2	4-9	2	4-3	2	5-5	2	4-8	2	4-2	2
	4-2×10	6-10	2	5-11	2	5-3	2	6-9	2	5-10	2	5-2	2	6-7	2	5-9	2	5-1	2
	4-2×12	7-11	2	6-10	2	6-2	3	7-9	2	6-9	2	6-0	3	7-8	2	6-8	2	5-11	3

For SI: 1 inch = 25.4 mm, 1 pound per square foot = 0.0479 kPa.

CK ON

a. Spans are given in feet and inches.

b. Spans are based on minimum design properties for No. 2 Grade lumber of Douglas fir-larch, hem-fir, and spruce-pine-fir. No. 1 or better grade lumber shall be used for southern pine.

c. Building width is measured perpendicular to the ridge. For widths between those shown, spans are permitted to be interpolated.

d. NJ - Number of jack studs required to support each end. Where the number of required jack studs equals one, the header is permitted to be supported by an approved framing anchor attached to the full-height wall stud and to the header.

e. Use 30 psf ground snow load for cases in which ground snow load is less than 30 psf and the roof live load is equal to or less than 20 psf.

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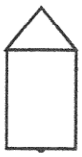
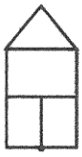
R602.7 (2)

TABLE ~~R502.5(2)~~

GIRDER SPANS[a,b] AND HEADER SPANS[a,b] FOR INTERIOR BEARING WALLS

(Maximum spans for Douglas fir-larch, hem-fir, southern pine and spruce-pine-fir[b] and required number of jack studs)

HEADERS AND GIRDERS SUPPORTING	SIZE	BUILDING WIDTH[c] (feet)					
		20		28		36	
		Span	NJ[d]	Span	NJ[d]	Span	NJ[d]
One floor only 	2-2×4	3-1	1	2-8	1	2-5	1
	2-2×6	4-6	1	3-11	1	3-6	1
	2-2×8	5-9	1	5-0	2	4-5	2
	2-2×10	7-0	2	6-1	2	5-5	2
	2-2×12	8-1	2	7-0	2	6-3	2
	3-2×8	7-2	1	6-3	1	5-7	2
	3-2×10	8-9	1	7-7	2	6-9	2
	3-2×12	10-2	2	8-10	2	7-10	2
	4-2×8	9-0	1	7-8	1	6-9	1
	4-2×10	10-1	1	8-9	1	7-10	2
	4-2×12	11-9	1	10-2	2	9-1	2
Two floors 	2-2×4	2-2	1	1-10	1	1-7	1
	2-2×6	3-2	2	2-9	2	2-5	2
	2-2×8	4-1	2	3-6	2	3-2	2
	2-2×10	4-11	2	4-3	2	3-10	3
	2-2×12	5-9	2	5-0	3	4-5	3
	3-2×8	5-1	2	4-5	2	3-11	2
	3-2×10	6-2	2	5-4	2	4-10	2
	3-2×12	7-2	2	6-3	2	5-7	3
	4-2×8	6-1	1	5-3	2	4-8	2
	4-2×10	7-2	2	6-2	2	5-6	2
	4-2×12	8-4	2	7-2	2	6-5	2

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

a. Spans are given in feet and inches.

b. Spans are based on minimum design properties for No. 2 Grade lumber of Douglas fir-larch, hem-fir, and spruce-pine-fir. No. 1 or better grade lumber shall be used for southern pine.

c. Building width is measured perpendicular to the ridge. For widths between those shown, spans are permitted to be interpolated.

d. NJ - Number of jack studs required to support each end. Where the number of required jack studs equals one, the header is permitted to be supported by an approved framing anchor attached to the full-height wall stud and to the header.

Residential Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion. Second. Granted.

Item B – 20 Request by Ralph Euchner representing the North Carolina Building Code Council to amend the 2018 NC Residential Code, Section P2604.1.4 Tracer Wire as follows:

P2604.1.4 Tracer wire. For plastic sewer *piping*, an insulated copper tracer wire or other *approved* conductor shall be installed adjacent to and over the full length of the *piping*. Access shall be provided to the tracer wire or the tracer wire shall terminate at the cleanout between the building drain and building sewer. The tracer wire shall be not less than 14 AWG and the insulation type shall be listed for direct burial.

Residential Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion. Second. Granted.

Item B – 21 Request by Keith Rogers representing the North Carolina Building Code Council Mechanical Standing Committee to amend the 2018 Residential Code, Section P2603.5 as follows:

P2603.5 Freezing. Water pipes installed in a wall exposed to the exterior shall be located on the heated side of the wall insulation. In other cases, water, ~~soil~~ and condensate waste pipes shall not be installed outside of a building, in unconditioned attics, unconditioned utility rooms or in any other place subjected to freezing temperatures unless adequate provision is made to protect such pipes from freezing by a minimum of R-6.5 insulation determined at 75°F (24°C) in accordance with ASTM C177 or heat or both. Exterior water supply system piping shall be installed ~~not less than 6 inches (152 mm)~~ below the frost line and not less than 12 inches (305 mm) below grade.

Note: These provisions are minimum requirements, which have been found suitable for normal weather conditions. Abnormally low temperatures for extended periods may require additional provisions to prevent freezing.

P2603.5.1 Sewer depth. *Building sewers* that connect to private sewage disposal systems shall be installed not less than 3 inches (76.2 mm) below finished grade at the point of septic tank connection. *Building sewers* shall be not less than 3 inches (76.2 mm) below grade.

Residential Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion. Second. Granted.

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 March 12, 2019 and the Final Adoption meeting may take place on or after June 11, 2019. The written public comment period expires on June 3, 2019.

There are no C items.

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 on January 28, 2019. The Final Adoption meeting will take place on March 12, 2019. 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 Eurilynn Caraballo representing Mecklenburg County Code Enforcement to amend the 2018 NC Building Code, Section 1009.7.2 as follows:

Exceptions:

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

2. The fire-resistance rating and opening protectives are not required in the exterior wall where the building is equipped throughout with an automatic sprinkler system installed in accordance with section 903.3.1.1 or 903.3.1.2.

[NOTE: Also, Fire Code Section 1009.7.2]

Commercial Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion to adopt. Second. Adopted.

Item D – 2 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Energy Conservation Code, Section R406.6.2 Compliance Report as follows:

5. The RESNET Registry number (or equivalent) for the ERI.

Residential Super Committee: Motion to disapprove. Second. Denied.
Reason cited for denial: Question of the use of the word "Equivalent" and who determines whether it is acceptable.
Building Code Council: No action required.

Item D – 3 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Residential Code, Section N1106.6.2 (R406.6.2) Compliance Report as follows:

5. The RESNET Registry number (or equivalent) for the ERI.

Residential Super Committee: Motion to deny. Second. Denied.
Reason cited for denial: Question of the use of the word "Equivalent" and who determines whether it is acceptable to the Council.
Building Code Council: No action required.

Item D – 4 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Residential Code, Section N1106.6.1 (R406.6.1) Compliance Software Tools as follows:

N1106.6.1 (R406.6.1) Compliance software tools. Compliance software tools for this section shall be in compliance with ANSI/RESNET/ICC 301-2014 (-Including Addenda A & B).

No motion was made from the Residential Super Committee. Request denied for lack of a motion.
Building Code Council: No action required.

Item D – 5 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Residential Code, Section N1106.2 (R406.2) Mandatory Requirements as follows:

N1106.2 (R406.2) Mandatory requirements. Compliance with this section requires that the provisions identified in Sections N1101.14 through N1104 labeled as "mandatory" be met. The building thermal envelope shall be greater than or equal to levels of efficiency and Solar Heat Gain Coefficient in Table 402.1.1 or Table 402.1.3 of the 2012 North Carolina Energy Conservation Code. Minimum standards associated with compliance shall be the ANSI/RESNET/ICC 301-2014 Standard (Including Addenda A and B) for the Calculation and Labeling of the Energy Performance of Low-Rise Residential Buildings using Energy Rating Index. A North Carolina registered design professional or certified HERS rater is required to perform the analysis if required by North Carolina licensure laws.

No motion was made from the Residential Super Committee. Request denied for lack of a motion.
Building Code Council: No action required.

Item D – 6 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Energy Conservation Code, Section R406.2 as follows:

N1106.2 (R406.2) Mandatory requirements. Compliance with this section requires that the provisions identified in Sections R401 through R404 labeled as "mandatory" be met. The building thermal envelope shall be greater than or equal to levels of efficiency and Solar Heat Gain Coefficient in Table 402.1.1 or Table 402.1.3 of the 2012 North Carolina Energy Conservation Code. Minimum standards associated with compliance shall be the ANSI/RESNET/ICC 301 – 2014 Standard (Including Addenda A and B) for the Calculation and Labeling of the Energy Performance of Low-Rise Residential Buildings using an Energy

Rating Index. A North Carolina registered design professional or certified HERS rater is required to perform the analysis if required by North Carolina licensure laws.

No motion was made from the Residential Super Committee. Request denied for lack of a motion.
Building Code Council: No action required.

Item D – 7 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Residential Code, Section N1106.7.1 (R406.7.1) Minimum Capabilities as follows:

N1106.7.1 (R406.7.1) Minimum capabilities. Calculation procedures used to comply with this section shall be software tools capable of calculating the ERI as described in Section N1106.3 and shall be in compliance with ANSI/RESNET/ICC 301 (Including Addenda A and B), and the software shall include the following capabilities:

1. Computer generation…

No motion was made from the Residential Super Committee. Request denied for lack of a motion.
Building Code Council: No action required.

Item D – 8 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Energy Conservation Code, Section R406.6.1 Compliance Software Tools as follows:

R406.6.1 Compliance software tools. Compliance software tools for this section shall be in compliance with the ANSI/RESNET/ICC 301-2014 (Including Addenda A & B).

No motion was made from the Residential Super Committee. Request denied for lack of a motion.
Building Code Council: No action required.

Item D – 9 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Energy Conservation Code, Section R406.7.1 Minimum Capabilities as follows:

N1106.7.1 (R406.7.1) Minimum capabilities. Calculation procedures used to comply with this section shall be software tools capable of calculating the ERI as described in Section N1106.3 and shall be in compliance with ANSI/RESNET/ICC 301 (Including Addenda A and B), and the software shall include the following capabilities:

1. Computer generation…

No motion was made from the Residential Super Committee. Request denied for lack of a motion.
Building Code Council: No action required.

Item D – 10 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Residential Code, Section Part IX Referenced Standards / ICC as follows:

ANSI/RESNET/ICC 301-14 (Including Addenda A & B) Standard for the Calculation and Labeling of the Energy Performance of Low-Rise Residential Buildings using an Energy Rating Index ……N1106.2, N1106.6.1, N1106.7.1

No motion was made from the Residential Super Committee. Request denied for lack of a motion.
Building Code Council: No action required.

Item D – 11 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Energy Conservation Code, Section NC Residential Provisions, Chapter 6 Referenced Standards, ICC as follows:

ANSI/RESNET/ICC 301-14 (Including Addenda A & B) Standard for the Calculation and Labeling of the Energy Performance of Low-Rise Residential Buildings using an Energy Rating Index……R406.2, R406.6.1, R406.7.1

No motion was made from the Residential Super Committee. Request denied for lack of a motion.
Building Code Council: No action required.

Item D – 12 Request by Barry Siegal representing BSC Holdings, Inc. to amend the 2018 NC Building Code, Section 903.2.8 and Table 602 and 2018 NC Fire Prevention Code, Section 903.2.8 as follows:

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

Exceptions:

1. An *automatic sprinkler system* is not required in new adult and child day care facilities located in existing Group R-3 and R-4 occupancies.

2. *temporary overflow shelters.*

3. An *automatic sprinkler system* is not required in camping units located within a campground where all of the following conditions exist.

    3.1. The camping unit is limited to one story in height,

    3.2. The camping unit is less than 400 square feet (37 m_2) in area.

    3.3. The camping unit does not have a kitchen.

4. An automatic sprinkler system is not required in an *Open Air Camp Cabin* that complies with the following:

    4.1. The open air camp cabin shall have at least two remote unimpeded exits. Lighted exit signs shall not be required.

    4.2. The open air camp cabin shall have at least two remote unimpeded exits. Lighted exit signs shall not be required.

    4.3. Smoke detectors and portable fire extinguishers shall be installed as required by other sections of this Code.

5. An *automatic sprinkler system* is not required in Group R-3 detached one- and two-family *dwellings and townhouses* not more *than three stories above grade plane* in height with a separate *means of egress.*

NC BUILDING CODE

TABLE 602
FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE[a, d, g]

FIRE SEPARATION DISTANCE = X (feet)	TYPE OF CONSTRUCTION	OCCUPANCY GROUP H[e]	OCCUPANCY GROUP F-1, M, S-1[f]	OCCUPANCY GROUP A, B, E, F-2, I, R[h], S-2, U
X < 5[b]	All	3	2	1
5 £ X < 10	IA Others	3 2	2 1	1 1
10 ≤ X < 30	IA, IB IIB, VB Others	2 1 1	1 0 1	1[c] 0 1[c]
X ≥ 30	All	0	0	0

For SI: 1 foot = 304.8 mm.

a. Load-bearing exterior walls shall also comply with the fire-resistance rating requirements of Table 601.
b. See Section 706.1.1 for party walls.
c. Open parking garages complying with Section 406 shall not be required to have a fire-resistance rating.
d. The fire-resistance rating of an exterior wall is determined based upon the fire separation distance of the exterior wall and the story in which the wall is located.
e. For special requirements for Group H occupancies, see Section 415.6.
f. For special requirements for Group S aircraft hangars, see Section 412.4.1.
g. Where Table 705.8 permits nonbearing exterior walls with unlimited area of unprotected openings, the required fire-resistance rating for the exterior walls is 0 hours.
h. For Group R-3 detached one- and two-family *dwellings* and *townhouses* of any construction type and not more than *three stories above grade plane* in height with a separate *means of egress* a fire separation distance of 3 feet or less shall be 1-hour fire-resistant rated and shall be 0-hour fire-resistant rated for distances greater than 3 feet.

New language proposed with substantial changes. Should be readvertised as a C item for June 2019 meeting in order to receive public comment.

Item D – 13 Request by Colin Triming representing the NC Fire Code Revision Committee to amend the 2018 NC Existing Building Code, Sections 403.11, 804.4.3, 1104.2 as follows:

403.11 Carbon Monoxide alarms. Individual sleeping units and individual dwelling units in Group R and I occupancies and classrooms in Group E occupancies and Group A-2 occupancies that contain a fuel-burning appliance or a fuel-burning fireplace shall be provided with carbon monoxide alarms in accordance with Section 915 of the North Carolina Building Code, except that the carbon monoxide alarms shall be allowed to be solely battery operated.

804.4.3 Carbon Monoxide alarms. Individual sleeping units and individual dwelling units in Group R and I occupancies and classrooms in Group E occupancies and Group A-2 occupancies that contain a fuel-burning appliance or a fuel burning fireplace shall be provided with carbon monoxide alarms in accordance with Section 915 of the North Carolina Building Code, except that the carbon monoxide alarms shall be allowed to be solely battery operated.

1104.2 Carbon Monoxide alarms in existing portions of a building. Where an *addition* is made to a building or structure of a Group A-2, I-1, I-2, I-4 or R occupancies, or classrooms are added in Group E occupancies, the *existing building* shall be provided with carbon monoxide alarms in accordance with Section 915 of the *North Carolina Building Code* or Section R315 of the *North Carolina Residential Code,* except the carbon monoxide alarms shall be allowed to be solely battery operated.

Residential Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion to adopt. Second. Adopted.
Commercial Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion to adopt. Second. Adopted.

Item D – 14 Request by Carl Martin representing the NC Department of Insurance to amend the 2018 NC Building Code, Sections 312.1 & H109.2 as follows:

312.1 General
Buildings and structures of an accessory character and miscellaneous structures not classified in any specific occupancy shall be constructed, equipped and maintained to conform to the requirements of this code commensurate with the fire and life hazard incidental to their occupancy. Group U shall include, but not be limited to, the following:

Agricultural buildings

Aircraft hangars, accessory to a one- or two-family residence (see Section 412.5)

Barns

Carports

Fences and ground signs more than 6 feet (1829 mm) in height

Grain silos, accessory to a residential occupancy

Greenhouses

Livestock shelters

Photovoltaic panel system (mounted at grade)

Private garages

Retaining walls

Sheds

Stables

Tanks

Towers

SECTION H101 GENERAL
H101.2 Signs exempt from permits.
The following signs are exempt from the requirements to obtain a *permit* before erection:

1. Nonilluminated wall signs.
2. Temporary signs.
3. Signs erected by transportation authorities.
4. Projecting signs not exceeding 6 square feet (0.56 m^2).
5. The changing of moveable parts of an approved sign that is designed for such changes, or the repainting or repositioning of display matter shall not be deemed an alteration.
6. Ground signs less than 6 feet (1829 mm) in height above finished grade.

SECTION H109 GROUND SIGNS
H109.2 Required Clearance. The bottom coping of every ground sign shall be not less than 3 feet (914 mm) above the ground or street level, which space can be filled with platform decorative trim or light wooden construction.

Exception: Signs that have a solid base of masonry, steel or similar material, commonly known as monument signs.

Commercial Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion to adopt. Second. Adopted.

Item D – 15 Request by the NC Building Code Council representing the NC General Assembly to amend the 2018 NC Energy Conservation Code, Section R101.2 as follows:

R101.2 Scope.
This code applies to *residential buildings* and the buildings sites and associated systems and equipment.
Exception:
1. In accordance with N.C.G.S. 143-138 (b19), no energy conservation code provisions shall apply to detached and attached garages located on the same lot as a dwelling.

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2017
SESSION LAW 2018-65
HOUSE BILL 573

AN ACT TO MAKE BUSINESS AND REGULATORY CHANGES TO VARIOUS STATE LAWS.
The ratified and signed legislation reads in part with respect to the energy conservation code requirements:

The General Assembly of North Carolina enacts:

EXEMPT RESIDENTIAL GARAGES FROM ENERGY EFFICIENCY CODES SECTION 2.(A) G.S. 143-138 is amended by adding a new subsection to read: "(b19) Exclusion From Energy Efficiency Code Requirements for Residential Garages. -The Council shall provide for an exemption for detached and attached garages located on the same lot as a dwelling from any requirements in the energy efficiency standards pursuant to Chapter 11 of the North Carolina Residential Code for One- and Two-Family Dwellings and Chapter 4 of the North Carolina Energy Conservation Code."
SECTION 2.(b) This section becomes effective October 1, 2018.

Residential Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion to adopt. Second. Adopted.

Item D – 16 Request by the NC Building Code Council representing the NC General Assembly to amend the 2018 NC Residential Code, Section N1101.1 as follows:

N1101.1 Scope.
This chapter regulates the energy efficiency for the design and construction of buildings regulated by this code.
Exception:
1. In accordance with N.C.G.S. 143-138 (b19), no energy conservation code provisions shall apply to detached and attached garages located on the same lot as a dwelling.

Residential Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion to adopt. Second. Adopted.

Item D – 17 Request by the NC Building Code Council representing the NC General Assembly to amend the 2018 Existing Building Code, Section 101.12 as follows:

101.12 Energy conservation exceptions.
The following exceptions apply to energy conservation code provisions in existing buildings in accordance with NC General Statutes:

1. In accordance with N.C.G.S. 143-138 (b18), no energy conservation code provisions shall apply to any structure for which the primary occupancy classification is Group F, S, or U. This exclusion shall apply to the entire building area.

2. In accordance with the N.C.G.S. 143-138 (b19), for *residential buildings*, no energy conservation code provisions shall apply to detached and attached garages located on the same lot as a dwelling.

Residential Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion to adopt. Second. Adopted.

Item D – 18 Request by Daniel Priest representing Priest Architecture, PLLC to amend the 2018 NC State Building Code, Table 2902.1 and the 2018 NC State Plumbing Code, Table 403.1 as follows:

2	Business (See Sections 2902.2, 2902.3, and 2902.3.2.2)	B	Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial and similar uses	1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50	1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80	—	1 per 100[q]	1 service [o] sink

q. For business occupant loads of 25 or fewer, drinking fountains shall not be required.

Commercial Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion to adopt. Second. Adopted.

Item D – 19 Request by Daniel Priest representing Priest Architecture, PLLC to amend the 2018 NC State Plumbing Code, Section 410.2 as follows:

410.2 Small occupancies. Drinking fountains shall not be required for an occupant load of 15 or fewer.

Commercial Super Committee: Motion to accept. Second. Accepted.
Building Code Council: Motion to adopt. Second. Adopted.

Part E – Reports

- **Chairman's Report**
  Chairman Robbie Davis reminded Board members to make sure their Economic Statements are in compliance by April 15, 2019. He asked about availability of parking passes for Board members instead of requesting reimbursement. Chairman Davis addressed the situation with an inactive member and explained that he is working with the Governor's office on this. He stated the Ad Hoc committees will remain as they are until the end of this process.

- **Ad-Hoc Committee Reports**
  No reports.

- **Standing Committee Reports**
  No reports.

- **Staff Reports**
  Barry Gupton explained that the official effective date for the B items will be January 1, 2020; however, they may be used after they have been through Rules and Review.

  Cliff Isaac reported that he has been working with the Qualification Board and the Building Code Council at combined meetings in order to continue to improve the 107 Inspections. Currently a document is being created that will help with understanding the requirements of the inspections.
  He continued to say that inspection times continue to improve with times of completion. 80% are completing inspections by the next day and 100% are completed within two days.

- **Public Comments**
  There were no public comments.

Part F – Appeals
There are currently no appeals scheduled.

Adjourned.